

MANUFACTURERS' RECORD

A Weekly

Southern Industrial and Hardware

Newspaper.

Vol. XIII. No. 16.
WEEKLY.

BALTIMORE, MAY 26, 1888.

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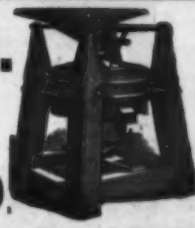
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Report of the AQUEDUCT Commissioners.

(NEW CROTON AQUEDUCT, NEW YORK.)

AN ELABORATE VOLUME, CONTAINING AUTHORITY TABLES BY THE CHIEF ENG., B. S. CHURCH. JUST ISSUED.

PLANT (by actual count from Table 13.)

Number of Ingersoll Drills used..... 242

Number of Drills of all other kinds used..... 103

PROGRESS (by actual figures from Table 8.)

Large weekly progress in best 20 headings that used Ingersoll Drills exclusively (omitting all idle ft. 38.72

Large weekly progress in best 20 headings that used other drills exclusively (omitting all idle weeks) 31.58

DIFFERENCE OF 30 PER CENT. IN FAVOR OF INGERSOLL DRILLS.

All headings where Ingersoll Drills were used exclusively have been completed, except the section under Harlem River, now being driven by Ingersoll Drills and Air Compressors. Send for description of Aqueduct, with Engineers' Tables of Progress and Catalogue. Sent free. We have procured a limited number of the Report of the Aqueduct Commissioners, and will send them by express on receipt of \$5, actual cost to us.

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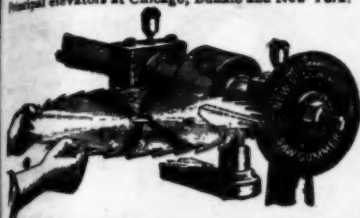
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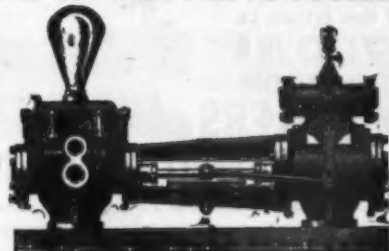


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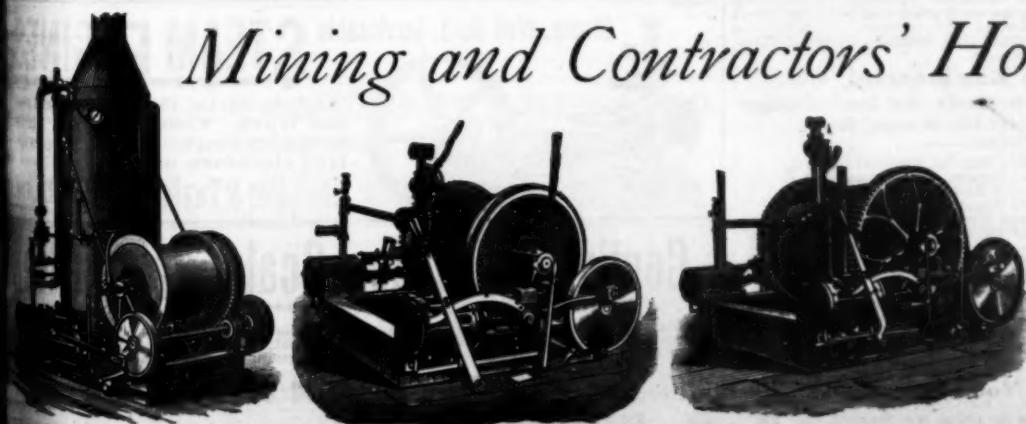
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Griffin "	Griffin, Ga.	Hotel Magnolia,	Magnolia, Fla.
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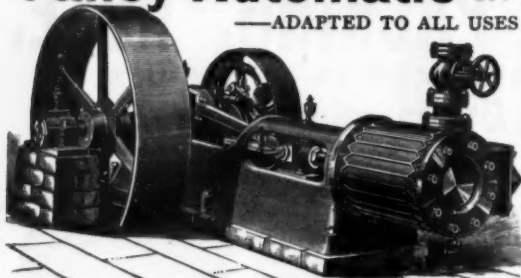


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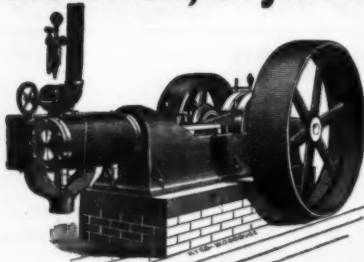
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Automatic Cut-off Engines

5 to 300 Horse Power.

Economy in Fuel Consumption,
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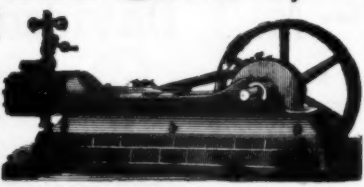
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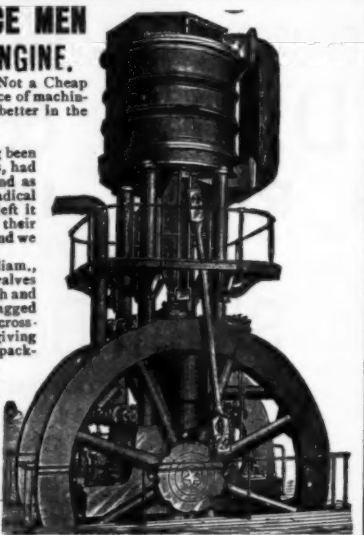
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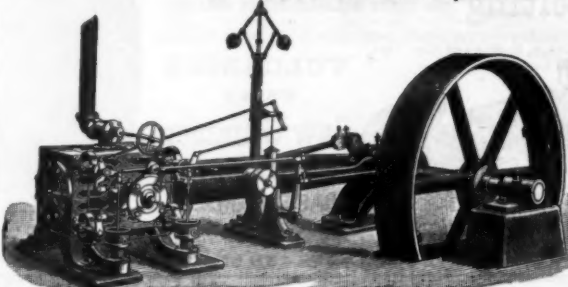
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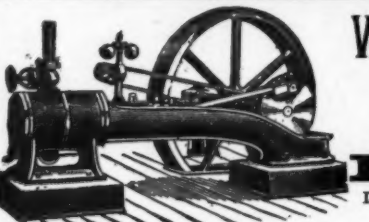
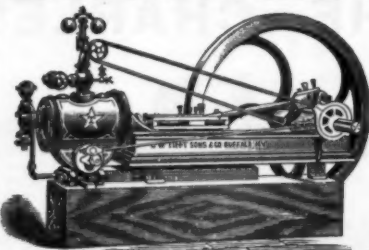
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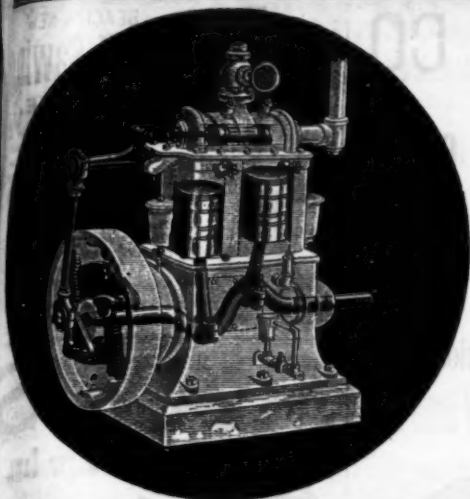
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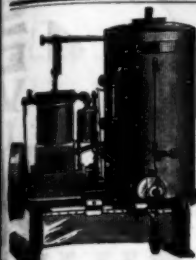
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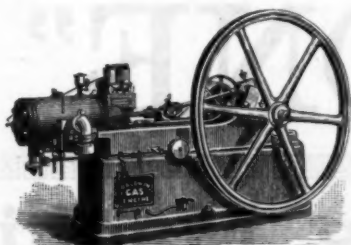
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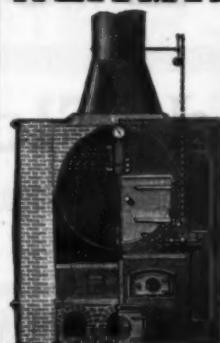


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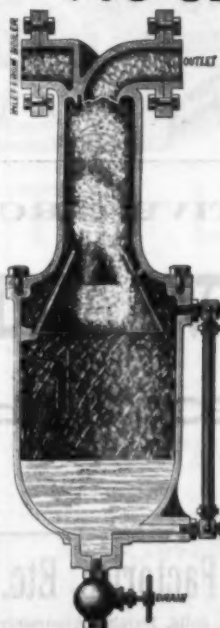
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Stratton Separator.

This is the only apparatus that automatically separates WATER FROM STEAM IN CONFORMITY WITH NATURAL LAWS. Speed of current is utilized to produce centrifugal action and separate the water from the steam, making the latter perfectly dry. Steam chimneys or drums are unnecessary when this apparatus is used. It is endorsed and in use by the leading Electric Light Companies, in the U. S. Navy, in Sugar Houses, Paper Mills, Water Works, and Steam Vessels, on which it has greatly increased their Power and Speed.

Over 20,000 Horse Power in Use.

The Stratton Separator was awarded the Medal of Excellence at the exhibition of the American Institute for 1896, and the Medal of Superiority in 1897.

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Shafting, Hangers.

Carriers of every
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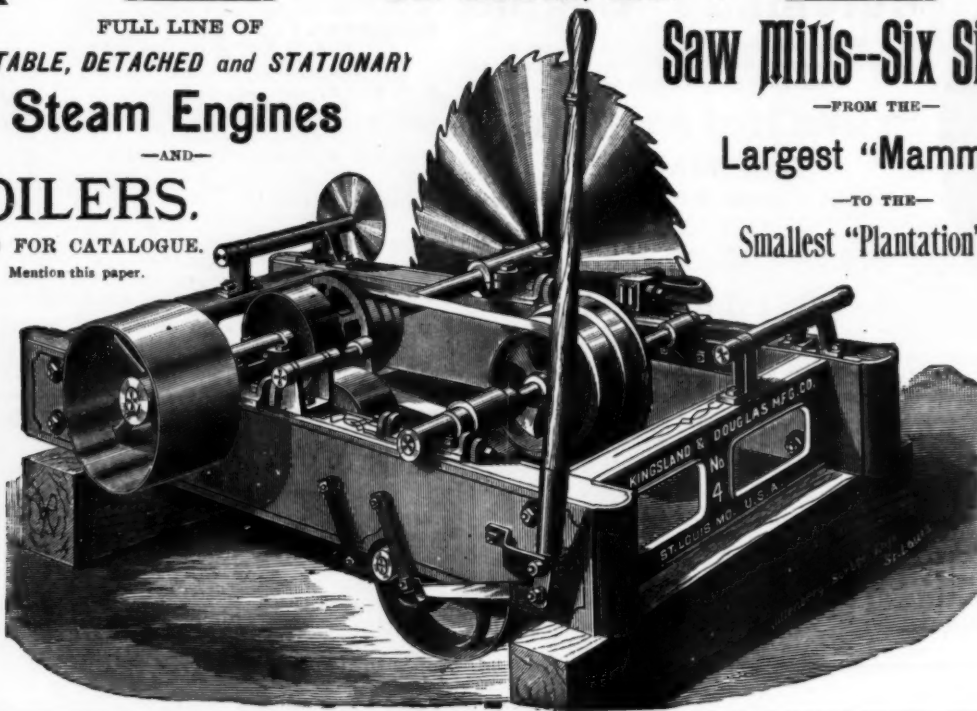
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PORTABLE, DETACHED and STATIONARY

Steam Engines

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BOILERS.

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**Scroll Sawing
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3,000 in use; made in four styles; prices to suit everybody; even struts; no jar; air pump, and every known improvement. You can stop, change the size and start in four seconds. Both tilting and stationary tables. Mention this paper and send for catalogue and prices. You can't afford to buy any other. Address, M. E. BEACH, Smith Street, Mount Vernon, Susquehanna Co., Penn.

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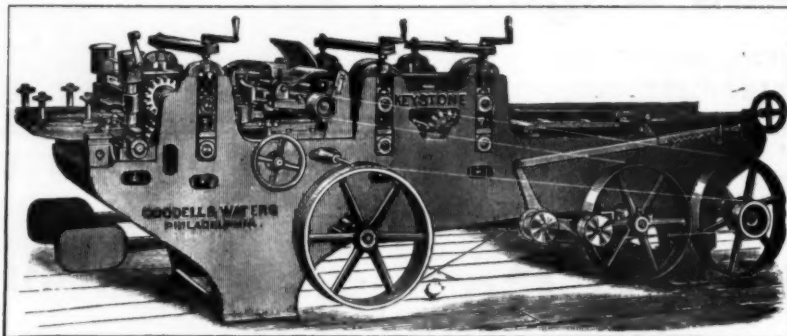
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Rapid Feed Flooring Machine.



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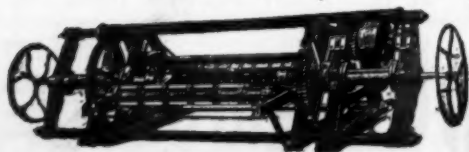
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Rotary-Cutting Veneer Machines.

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Made, Double Drivers, Positive
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Correspondence solicited.

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WORKS.

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40 & 42 PLUM ST.

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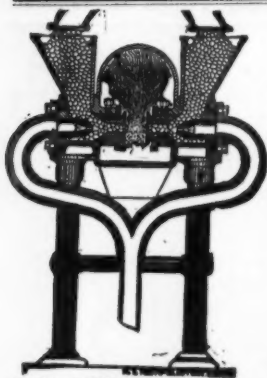


Stedman's Improved Disintegrator and Pulverizer.

This Mill will disintegrate or pulverize materials of all kinds, for brick and tile, for cement and fire brick, and slag from open air furnaces for use in rolling mills, and materials for foundry facings, iron ores, animal matter in almost all conditions,—in fact almost any material that can be disintegrated. It is an improvement over any yet made and the result of practical experience.

Send for Descriptive Circular.

STEDMAN'S
Foundry & Machine Works,
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Sectional View of Pulverizer.

PNEUMATIC PULVERIZER.

The principle of pulverization consists in the employment of

TWO POWERFUL OPPOSING CURRENTS

of dry super-heated steam, so arranged that they continuously charge themselves with crushed or granulated material, and by the great force and velocity of the steam currents the minerals are dashed against each other with such power of concussion as to cause the hardest ores to be pulverized to any degree of fineness desired. The high temperature of the super-heated steam currents employed, through which every minute particle of ore must pass, causes them to become very hot and dry, which produces a beneficial effect upon sulphurets and ores containing rusty gold. The light weight and simplicity of construction of the Pulverizer, the extremely small and inexpensive wearing parts are the WONDER and SURPRISE of all who witness its operation. The Company are prepared to furnish complete plants for pulverizing

10 to 200 Tons Per Day,

including a Sectional Steam Boiler supplying all the power required.

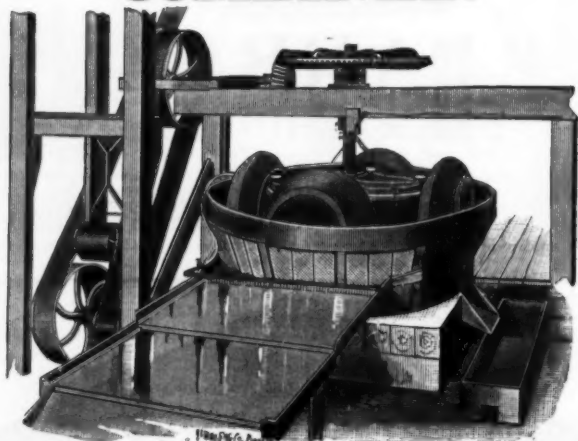
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WISWELL Ore Pulverizer AND Amalgamator COMBINED.



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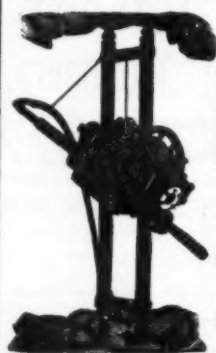
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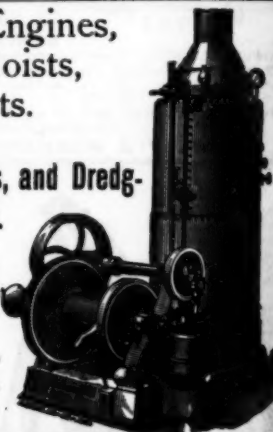
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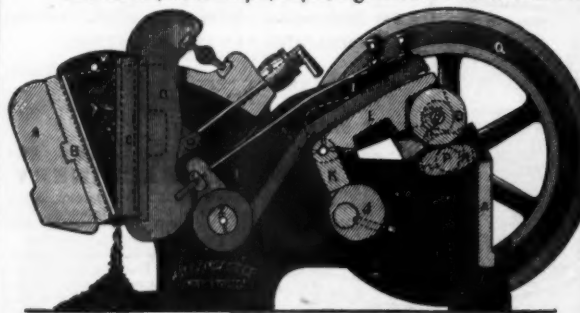
535 Arch Street, Philada.

References: { Croton Magnetic Iron Mines, Brewster's, N. Y.
Crown Point Iron Co., Crown Point, N. Y.
Belvidere Iron Co., 30 Broadway, N. Y.
San Island Chemical Co., Beaufort, S. C.



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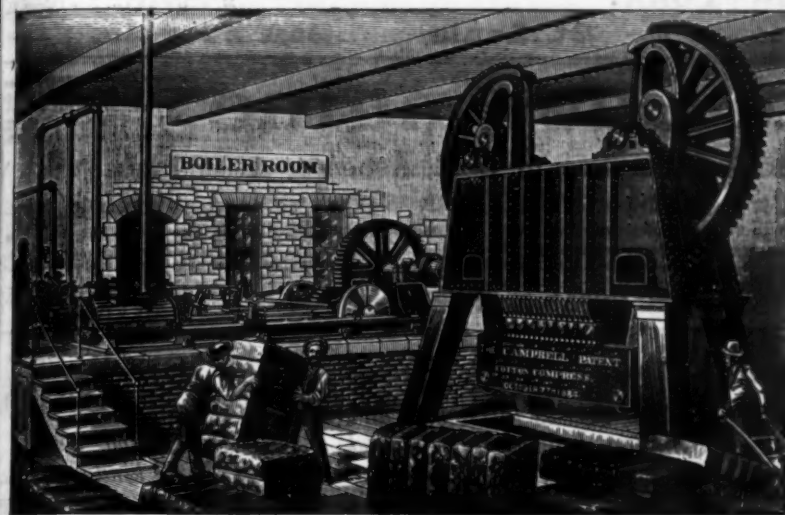
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It is the only compress profitable for a small market, as it can be run on small lots at a profit, where other compresses could be operated only at a loss.
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CARD CLOTHING of Every Description,
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Patent Needle Pointed **CARD CLOTHING,**
Hardened and Tempered Steel Wire
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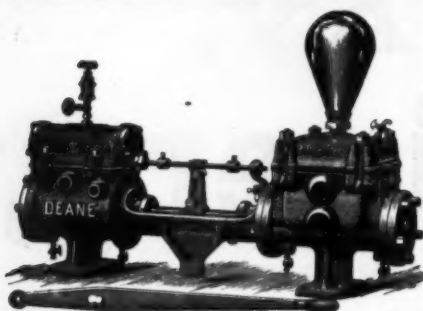
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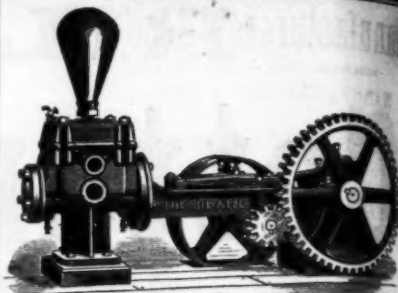
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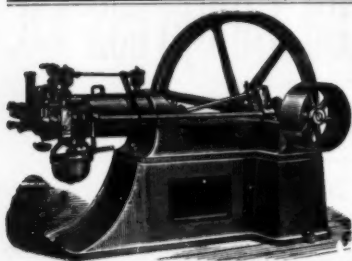
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Manufacturers' Record.

PUBLISHED EVERY SATURDAY BY THE
MANUFACTURERS' RECORD CO.

R. H. EDMONDS, EDITOR.

—OFFICE—

THE EXCHANGE PLACE AND COMMERCIAL STREET
BALTIMORE.

SUBSCRIPTION \$4.00 A YEAR.

BALTIMORE, MAY 26, 1888.

**Garcin, Moseley & Böhmer, Sales
Agents Southern Rubber Co.**
RICHMOND, VA., April 26, 1888.*Our Manufacturers' Record:*

We desire to write you our opinion as to how we regard the MANUFACTURERS' RECORD as a reliable source of information and as an advertiser. We are pleased to say we have found it to be by far the most reliable paper of the kind published, and, as we have subscribed to all kindred papers, we think we are in a position to judge. We have discontinued all subscriptions to papers purporting to be of the same class, as we find all the information regarding the progress of new enterprises in the MANUFACTURERS' RECORD about one week ahead of any of the other journals. Through your Construction Department we have secured some of the largest orders placed in the South for rubber and leather belting, among them that of the Empire Lumber Co., at Empire, Ga., to whom we furnished some \$2,000 worth of belting; the Orange Park Lumber Co., at Orange Park, Fla.; the Brenham Oil Works, Brenham, Texas, and many others too numerous to mention. We cheerfully give you an advertisement, and feel assured that the money is well spent. We will say we do not believe in newspaper advertising, and your paper is the only one in which we would care to have an advertisement of any kind. We have been subscribers to the MANUFACTURERS' RECORD for three or four years, and intend to keep up our subscription as long as the paper is published. Very truly,
GARCIN, MOSELEY & BÖHMER.

**Fletcher & Thomas, Manufacturers of
All Kinds of Brick-makers'
Supplies.**

INDIANAPOLIS, IND., April 6, 1888.

Our Manufacturers' Record:

We are happy to say that the direct results from our advertisement in the MANUFACTURERS' RECORD have been very satisfactory. Our trade throughout the South since January 1 has more than doubled that of last year, and very largely we owe this to the fact of your paper reaching to all quarters, and directly to those who are looking for improved machinery. Hardly a day goes that we do not receive letters saying "we see the MANUFACTURERS' RECORD that you have improved brick machinery, etc. etc." We heartily commend your paper as a medium for reaching the public. Yours very truly,
FLETCHER & THOMAS.

**F. Adams Co., Manufacturers of
Patent Household Articles.**

ERIE, PA., March 10, 1888.

Our Manufacturers' Record:

The "ad." we have in your paper we consider one of the best investments we have made this year. We are receiving numerous enquiries from first-class houses, asking for catalogues and best cash prices. This is our second year with you, and we can trace a number of our orders direct to our "ad." in the RECORD. We have tried other papers who claim to reach the trade we are seeking, and have settled on the MANUFACTURERS' RECORD as being superior to others for Southern trade. Yours truly,
THE F. F. ADAMS CO.

**F. Waters Manufacturing Co., Manu-
facturers of Smith's Patent
Friction Drill.**

BOSTON, MASS., February 4, 1888.

Our Manufacturers' Record:

I give you pleasure to state that our "ad." in the MANUFACTURERS' RECORD has brought us, on the average, about 30 letters per month. We consider it a paying investment. Respectfully,
F. F. WATERS MFG. CO.

**Cushman, Meyer & Co., Manu-
facturers of Wood-Working
Machinery.**

CINCINNATI, O., January 27, 1888.

Our Manufacturers' Record:

We are highly pleased with the returns from our advertisement in your journal, and take pleasure in recommending it to others in our line as a valuable medium for reaching the trade. Yours very truly,
CUSHMAN, MEYER & CO.

To See is to be Convinced.

The MANUFACTURERS' RECORD has repeatedly urged the importance of the South's inducing Northern capitalists to come down and personally investigate the resources and the growth of that section. We have yet to hear of a Northern man of any prominence who has carefully studied the growth and the possibilities of the South without being more than astonished, and who is not ready to admit that they far exceeded his expectations. Decatur set a good example when a few months ago it arranged for a series of excursions to that town from New England, and these visitors were surprised at the wonderful advance which that progressive place has made. Its growth in twelve months has been simply immense. Birmingham last week scored a good point in securing the annual meeting of the American Institute of Mining Engineers. The members of this institute are among the most distinguished iron men of the country. They have given their life to that line of business, and they had read of Alabama's marvellous mineral wealth and of the wonderful growth of that State as typified in Birmingham, but even they were utterly astonished at what they saw. They freely admitted that Alabama's resources and Alabama's industrial growth far exceeded anything they had dreamed of. As the MANUFACTURERS' RECORD has so often said, "to see is to be convinced," and every Northern expert who goes South and makes a careful investigation becomes enthusiastic over the future of this section. Last week Anniston followed in this good line of work by inviting about forty or fifty of the leading business men of Baltimore to go down and "spy out the land" and see what she was doing. These gentlemen had been furnished with about all the literature ever published on Anniston. They had pamphlets and papers almost without end, and they expected to find that the rosy picture painted in these would be somewhat overdrawn. After two days of careful investigation, however, they freely admitted that the "half had not been told," and that the place far surpassed what they had looked for.

We give these illustrations to show the value of such excursions. The South needs capital. It needs capital for banking purposes, for new enterprises, and for developing its unlimited wealth. It offers a splendid opening for such investments, and this can only be drawn from the East after Eastern people have seen and studied for themselves the possibilities of this section. These excursions help on this work, but the railroads ought to be the leaders in this movement. They ought to make a business of getting up such excursions of capitalists and practical business men, for they will reap the largest returns from the South's development. The Louisville & Nashville has often done this. Now let that road keep it up, and let every other Southern road join in the work.

The Exposition Year.

The world never had as many expositions at any one time as it will have had before this year of grace ends. Abroad there is a world's fair at Barcelona, Spain, now well begun. Italy has another at Bologna that King Humbert opened but a week or more ago. Denmark has one at Copenhagen, and the Prince and Princess of Wales gave their sanction to an Anglo-Danish one at Kensington quite recently. Congress has appropriated a small sum for one at Brussels, and the President has sent Hon John Bigelow across the ocean to represent American interests there. Glasgow, Scotland, has a similar enterprise afoot, Australia another, to which San Francisco and New York merchants have sent displays. There are to be others in various parts of the world that will attract considerable attention. In the United States we are to have many of these useful affairs. Memphis, Atlanta, Charleston, Richmond, Cincinnati and various other places are expecting to "do themselves proud" and reap golden harvests through similar enterprises. But above all others, foreign or domestic, the one of most account to the South will be that which Augusta, Georgia, has undertaken. The enterprising people of that beautiful, wealthy and yet very conservative city have determined to eclipse all of their municipal sisters of the South by making a display, national in its character, Southern in its effects, that shall inure to the glory of that prosperous mart, and to the glory of the South as well. They have planned to do what no other one of their sisters has, and that is to make their exposition a comprehensive illustration of all the South has accomplished since it entered upon its present career of development and prosperity. They have asked for no outside help, but have bravely put up all the money needed to carry their plan into execution. These plans are to gather under one roof such a series of displays from all parts of the South as will illustrate the diversity of industries created since January, 1882, and also to show that these industries simply point out the path to that greater development on the threshold of which the South now stands. The raw materials that nature has lavished upon that section, the industries that have sprung from them, the progress in manufactures and the mechanic arts, the diversified products of agriculture and horticulture, and the successful efforts that have been made to put them into commercial forms, these and many other things will be exhibited. These exhibits will be so many tangible proofs of what has been done in the past six years, and of what may be done before this century is completed.

Northern manufacturers and merchants have shown their appreciation of what this exposition is to be by

making early applications for large areas of space in which to make displays of their specialties. Such concerns as the Lowell Manufacturing Co., Diston & Sons, the saw makers, the McCormick Co., of Illinois, and numerous others of like wealth and enterprise have secured space at this early day. It has become a serious question with the management whether the spacious building they are now erecting will be sufficiently large for the accommodation of all participants. Fortunately they have ample grounds on which all who so desire may erect tents or more substantial pavilions, and as several prominent houses have already decided to do this, it is probable that their example will have many followers. The site selected is one of the finest on which a Southern exposition has yet been held. Street cars run to it, and the Georgia Railroad has built a special track over which freights and passengers can be carried. It is in the vicinity of Augusta's beautiful suburb, Summerville, and within twenty minutes' drive of the city's business center. All that skill, experience and ingenuity could do to adapt the site and the buildings upon it to the grand purpose in view has been done. No money will be spared and no labor be too great, in the estimation of the management, to make this the crowning American exposition of the year.

The MANUFACTURERS' RECORD congratulates the Augustans on their enterprise. In their initial work they have displayed a wisdom that argues well for a complete realization of their most sanguine hopes. The mighty progress of the South should be illustrated annually by such an enterprise as they have undertaken. The Piedmont Exposition at Atlanta last year was a step in the right direction. Augusta has taken hold where Atlanta left off, and will give the world an opportunity to see the breadth and greatness of Southern progress. Now let the entire South second her efforts. Every town in which new industries have been established since 1881 should send evidences of them to this exposition. Every mill, factory, cannery, mine, quarry and industry of whatever kind that has commenced business in the South since December 31st, 1881, should send its products there. Planters, farmers' organizations, nurserymen and florists should be represented. The grand aggregate from all these sources, properly displayed and described by the ready pens of many gifted correspondents, will repeat in new and attractive forms the stories the MANUFACTURERS' RECORD has told in statistical compilations from week to week and from quarter to quarter during all these years of effort and progress.

It has been suggested in some quarters that the presidential campaign will to some extent neutralize the success of this and other similar enterprises. This objection will not

hold good. Augusta will open her great fair October 10th and close it November 17th. At that period the South will be clothed in the radiance of autumnal beauty. The weather is almost sure to be perfect. The political campaign will have no more effect upon the attendance than was the case in Philadelphia in 1876, when party passion ran higher than it has done at any time since. Long before opening day every voter will have determined what party shall receive his support. The masses will care far more for the fair and the races at Augusta than they will for the political meetings, of which they will have had their fill. All the transportation lines running into Georgia have granted liberal excursion rates to exposition visitors. They will also instruct their agents to create an enthusiasm in their respective localities that will insure a large attendance.

The Cut in Iron.

The contest between Northern and Southern furnaces is becoming very active, and some of the Pennsylvania iron makers have decided to take very vigorous steps to try to save their trade from being cut into by Southern irons. The indications point to a sharp fight, but we feel quite confident that in the end the Southern furnaces will win the battle. A few of those that are not located to the best advantage may suffer a little, but the iron trade of the South as a whole will, we are confident, score the greatest success yet made in this contest. It will be demonstrated then, as it was during 1884 and 1885, that Southern furnaces can make iron and sell it at a profit when the majority of Northern furnaces would be losing money. The MANUFACTURERS' RECORD regrets to see any such contest. It would much prefer that the whole country should be prosperous, and that every furnace in it should be making money; but as the contest has come, we feel sure that the well-located and well-managed Southern furnaces will find that they can still make a little money, even after their most active Northern competitors have abandoned the fight.

THE BALTIMORE MANUFACTURERS' RECORD, under cover of political neutrality and profound devotion to Southern interests, is running one of the most bitter, unscrupulous and unfair war tariff Republican sheets in the United States.—Pensacola Daily Commercial.

Our friend of the Commercial is mistaken. We are not running a Republican sheet nor a Democratic sheet. We are trying to publish a thoroughly independent industrial paper, into which political discussions are not admitted. Thoroughly and heartily believing in the necessity of a protective tariff for the South, we are doing all in our power to advocate it, not, however, from a Republican point of view, nor from a Democratic, but simply outside of party lines. Personally, if we may be excused for personal references, the editor of this paper is Southern by birth and sentiment, and in politics is a Democrat.

A Gigantic Iron Company.

One of the most extensive deals ever made in the iron interests of the South, if not in the entire country, has just been consummated at Anniston. The Woodstock Iron Co., capital \$3,000,000, and the Clifton Iron Co., capital \$500,000, have been among the most notably successful furnace companies in America. Their financial history, if made public, would read like a romance, but the controlling spirits in these two companies have preferred to keep these matters out of print. They are both controlled by the same men, and their profits have been such as to demonstrate more forcibly than anything else we know of the remarkably low cost of iron-making in that section. The Woodstock Co. own two charcoal furnaces of 50 tons daily capacity each and about 100,000 acres of ore and timber lands, and they are now building two coke furnaces to produce 300 tons of iron a day. The Clifton Co. own two 50-ton charcoal furnaces, and we believe their ore and timber lands aggregate about 12,000 or 15,000 acres, possibly more. It has been rumored that they would shortly build another furnace. All of these properties have been paid for in cash, there being no bonds or debts of any kind to encumber their operation.

These two companies, controlled by the same people, have been consolidated and have purchased the Shelby Iron Works property, consisting of two 50 ton charcoal furnaces, about 25,000 acres of splendid ore and timber lands, a railroad and other property. The price is not stated in the Anniston Hot Blast, from which the facts as to the consolidation are gathered, but it was recently rumored that the purchase price would be \$1,200,000. This consolidation and absorption will give the Woodstock Co. about 150,000 to 175,000 acres of picked mineral and timber land, and six charcoal and two coke furnaces, the entire property being free from debts, with no bonds or notes in existence, and the furnaces yielding very large profits, while a few of the leading stockholders also control the Cahaba Coal & Coke property of 36,000 acres of coking coal. It probably means that Anniston is clearing the decks for action, and that her people are getting ready for the most determined work which they have yet done in developing the Anniston iron district.

At the meeting of the American Mining Engineers at Birmingham last week, Mr. W. M. Bowron, manager of the South Pittsburg Division of the Tennessee Coal, Iron & Railroad Co., showed by a closely itemized statement, allowing three per cent. for repairs and 6 per cent. for interest, that iron could reliably be made in the Birmingham district at \$9.04 a ton.

The Southern Alliance, an 8-page paper lately started at West Point, Ga., will be the organ of the Farmers' Alliance. It will shortly be enlarged to 16 pages.

A Railroad Ballasted with Iron.

During the recent excursion of Baltimore capitalists to Anniston, Col. McKleroy, the president of the Anniston City Land Co., invited them to take a trip over the Anniston & Atlantic Railroad, a local 60-mile road built by the Woodstock Iron Co., which he stated was probably the only railroad in America actually ballasted with iron ore, and ore of a good quality too. The ore is so abundant that it is really about the cheapest ballast for a portion of the road that could be secured. On the trip a stop was made at an immense hill, almost a mountain of iron, owned by the Woodstock Company. This ore analyzes 55 to 56 per cent. metallic iron and is remarkably free from impurities. Openings have been made in many places to test it, and everywhere it shows the same wonderful quantity and quality. The surface of the ground is covered with ore in all shapes and sizes, and as deep as the excavations have been made ore is still found in seemingly inexhaustible quantity. One of the peculiarities of this mountain or hill is that on the slopes cotton is being raised, every turn of the plow throwing up ore. "Here," said one Baltimorean, "is a contest; iron and cotton struggling for the mastery; which will be king?" "You seem to plant cotton and gather iron," said another visitor. It is in the neighborhood of this great bed of iron that the railroad which skirts the hill is ballasted with ore analyzing 55 to 56 per cent. metallic iron.

It is this vast supply of the raw materials, the ore, the coke, the limestone, &c., on which Anniston and Birmingham and other towns are building up their gigantic iron industries, and the cheapness of these materials will enable them to prosper, even during the severest depressions in the general iron trade of the country.

Protection for Sugar.

That the Republican members of the Ways and Means Committee will propose a bill for the reduction of the public revenues now seems likely, and that bill, it is said, will include a large reduction of the duty upon sugar. Against this portion of the measure Judge Kelley is alleged to protest, and his protest is, in our opinion, warranted by the fact that the American sugar industry has as good a right to protection as any other industry. The proposition to give a bounty to the sugar-growers promises them some reparation; but why not make the whole saving by taking off the internal revenue taxes and letting the customs duties alone? This plan not only would attain the desired end by ready means, but it would save the cost of the Internal Revenue Bureau, and it would do more to break the solidity of the South than any other thing. The indisposition of Republican politicians to sweep the internal taxes out of existence is as inexplicable as their failure to agree upon any one plan of reducing the revenues is lamentable. The argument against the excise system appears to us to be impregnable.—Philadelphia Manufacturer.

"Sundry Iron Ores and Coals of Alabama."*

The object of this paper is to deal with the above subjects with the view of throwing a little light, if possible, and presenting a few facts which may prove interesting and to an inquiring and discriminating body of scientific personages to whom this paper is to be presented.

There is no question of such importance as iron ore and coke that has been exaggerated and misrepresented in many ways as those minerals of our State. A great many unsophisticated persons have made extraordinary reports of the quantity and richness which could not be backed up by facts. On the other hand, experts have come here who have taken pains to select the poorest and most inferior samples, representing them to be an average, with a view of making some favorable comparisons with other States in the selection of samples. One can select 100 or 200 poor samples and get an average as well as selecting the same number of rich ores, and still neither selection is a fair, honest average.

If the proof of the pudding is the eating of it, then our furnace records ought to do and show what our ores run and what calorific duty we obtain from our coals, and what burden and blast it stands, while some would make our ore poorer in iron than others. Why is it that the furnace gets from 40 to 50 per cent. of iron from an equal mixture of our poorest and best ores? Why is it that one of our furnaces has made iron with 2,500 pounds of coke to 2,300 pounds of iron? Another a ton of iron to a ton of coke. Another 1.37 per cent. of coke to a ton of 2,300 pounds of iron, making 66 tons of iron with a blast of only 1,150 degrees Fah. for 24 hours. I do not wish to convey the idea that this is done as a regular thing or as an average, but it has been done and is one of the possibilities, and certainly unless the steel was excellent and did not equal the best in the world, it could not be done. It may be well enough to give account of the geological distribution of our ores before examining into their chemical qualities and examining their analysis herein appended. The ore veins in this State occur in parallel ridges, running in a north-easterly and south-westerly direction. The coal outcrops in alternate and parallel ridges to the ore. The most important of the ridges is Red Mountain of Clinton formation, as it is the one where the most ore is mined. The ore in this mountain has an average thickness say from 10 to 20 feet. The depth to which it has been mined from the surface may not exceed 300 feet.

The first 100 feet carries ore designated as soft red ore, with little or no lime carbonate and quite rich, averaging from 50 to 55 per cent. of iron. From 100 feet to depth to 200 feet the carbonate of lime increases quite rapidly, until it has, say, about from 25 to 35 per cent. of iron and from 40 to 45 per cent. carbonate of lime, called hard red ore. In furnace practice it is not unusual to use half of each, and sometimes little or no limestone is used. As little as 50 pounds to 500 pounds to a charge has been used. Nearly every furnace man here has a different burden.

As to the coal, it mostly comes from the Pratt mines, which supplies nearly all the furnaces in this district. At present the vein is from 4 feet to 4 feet 6 inches in thickness, and is mined from slopes and shafts. The deepest shaft and the bottom of the basin is about 350 feet deep. The basin is seven miles wide, and there are from 3,000 to 3,500 tons mined daily, and the following furnaces are principally supplied: The Sloss Iron & Steel Co. furnaces, the Alice furnace, the Ensley furnace.

*A paper read by Prof. Albert E. Brainerd, Birmingham, at the annual meeting of the American Institute of Mining Engineers.

Mary Pratt and Eureka furnaces. White Creek is nine feet thick and the basin is three miles wide, and has recently been sufficiently developed to supply coal which will supply the De Barre Coal & Iron Company for the two rolling mills and various other industries of Bessemer. The coal is on an outcrop which dips coal at an incline of from 0 degrees to 15 degrees, and the bottom of the basin is 1,105 feet from the surface on an incline, or is about 1,000 feet vertically. The Coalburg mines are located on one part of the Pratt seam, and shows an entirely different coal, both physically and chemically. Coke made from this coal supplies the Williamson furnace and is also being used now in the Iron & Steel Company's furnaces at Birmingham to a more or less extent, and bent at right angles and then straightened out and again bent and this repeated several times until it yielded and broke in two. It seemed to bend and have a fibrous structure like wrought iron. This was made from furnace scraps, melted down in a cupola and then cast into the gudgeon. Any one can see that such an oracular demonstration of the structural strength of this iron needs no gainsay. As to its quality, I have seen some remarkable proofs of its superiority in this city in a number of instances, but nothing so marked as the above. As long as the manufacturing and foundries can buy our iron at same figures or a shade under those of Northern iron, they are going to leave prejudice and whims to the winds. Having learned that Mr. Samuel Thomas practically controls the outside iron market in Pennsylvania, it takes no philosopher to reason that if he did not see a chance of beating his past record there, he would have never acquired that splendid property he now possesses of coal and ore lands in the Birmingham district, or the erection of the initial furnace which is to be the first of a series of the finest furnace plants in the South. He has undoubtedly, with many others, learned the true value and appreciates the real merit of our native material for the production of iron on a large scale, and to successfully compete with a Northern iron market.

I will state that we have a series of brown and red ore veins and in parallel ridges to Red Mountain, which contains Bessemer ores, many of them having been heretofore away from transportation, has been inaccessible and therefore no attention has been paid to them. Now a number of railroads are being projected and built across and along these ridges. In a short while they will find an outlet and ready market here in Birmingham, and will be used in Bessemer and open-hearth works. Some analysis are added to this report. In conclusion I will cite an evidence that at Pratt mines there are half colored and half white miners, and Coalburg about the same. Owing to this labor having become more skillful during the past three years, and also owing to extra precautions in assorting and mining the coal, there is fully 83 per cent less ash in the coke, as shown at the stock piles by very careful and judicious sampling at that time and at the present. The furnaces are also showing this fact by using less of the coke than formerly, and getting more duty from the same. A certain manager of an iron works in this city illustrates the fact that the coke has improved in quality in saying "that several years ago he only succeeded in melting four pounds of iron with one of coke in the foundry cupola. He has now been enabled to melt eight pounds of iron with one pound of coke." How does this compare with our Northern iron foundries? These facts show that our labor is becoming more skillful, and when equally skilled as Northern labor, our raw material will be proportionately improved, and will compare favorably and

right cellular structure and hardness. Having been brought up and educated in the East, I took some pains four years ago to ascertain if possible whether, if any, there was a prejudice against the Southern pig iron, and the causes for it. After making a great many inquiries among large consumers of iron, I found that there was a decided prejudice, but was unable to find any foundation for it, and, as a matter of business, when they could get on the right side of the market, prejudices and whims vanished like dew before a mid-day sun.

While in Virginia a few years ago, I saw a cast gudgeon turned down in a lathe to five inches and a couple of feet long. The surplus metal was cut through down to say five-eighths of an inch, leaving some six inches on the end and outside of the cut. This was struck with a sledge hammer and bent at right angles and then straightened out and again bent and this repeated several times until it yielded and broke in two. It seemed to bend and have a fibrous structure like wrought iron. This was made from furnace scraps, melted down in a cupola and then cast into the gudgeon. Any one can see that such an oracular demonstration of the structural strength of this iron needs no gainsay. As to its quality, I have seen some remarkable proofs of its superiority in this city in a number of instances, but nothing so marked as the above. As long as the manufacturing and foundries can buy our iron at same figures or a shade under those of Northern iron, they are going to leave prejudice and whims to the winds. Having learned that Mr. Samuel Thomas practically controls the outside iron market in Pennsylvania, it takes no philosopher to reason that if he did not see a chance of beating his past record there, he would have never acquired that splendid property he now possesses of coal and ore lands in the Birmingham district, or the erection of the initial furnace which is to be the first of a series of the finest furnace plants in the South. He has undoubtedly, with many others, learned the true value and appreciates the real merit of our native material for the production of iron on a large scale, and to successfully compete with a Northern iron market.

By a judicious system of mining and sorting with skilled labor the coke would now from 8 to 10 per cent. ash instead of from 10 to 12 per cent. in the furnace. There is a great difference between white and colored and convict labor, but white and black. There is too a difference between a hundred generations of miners, as the Cornish and Welsh, used in Pennsylvania, the mining skill and propensities being handed down from father to son, being hereditary for generations, as between one generation of free labor, or free white labor, and for a term of from 6 months to 5 years of both white and colored convict labor. Perhaps these parties who have made so many unfavorable comparisons of Southern coals and ores would consider the difference between our labor and theirs, unskillful against skillful miners who produce the ore and made the coke, any such comparison would lose some of its pungency and force. I propose to show that if our coals and ores were mined and coke made with our comparatively inferior labor that we can produce coke second to none, and superior to any, and at a less cost. I understand that in some limited sections of Pennsylvania, say at Lebanon, ore can be mined and put in the car at less than 25 cents a ton, and was not informed that any foreign furnace company, outside of the proprietors of the blast furnaces and furnace companies, are made the gainers by the cost of the low production.

In regard to coal from Virginia and Tennessee, while I believe we can't produce coal quite so easily as in the Kanawha and Pocahontas coal fields, nor our colored labor quite so skillful, still I believe we can produce it as cheap, and think the natural gas will make equally good, if not better than low in ash and sulphur, and of the

in most instances forge ahead of them all.

COMPARATIVE ANALYSIS.

Mr. Brainerd also kindly furnishes the following analysis:

No. 1 Limestone—Tennessee Coal, Iron & Railroad Co.—Protoxide iron, 0.440; silica, 2.790; lime carbonate, 94.2303; magnesia carbonate, 2.5190; undetermined and loss, 0.0803.

Limestone No. 2, Stock Pile—Tennessee Coal, Iron & Railroad Co.—Protoxide iron, 0.703; silica, 3.380; alumina, 1.397; lime carbonate, 92.483; magnesia carbonate, 0.757; undetermined and loss, 1.3810.

Pratt Coke, Stock Pile—Tennessee Coal, Iron & Railroad Co., Ensley furnace.—Moisture, 0.165; volatile, 1.190; fixed carbon, 90.733; sulphur, 1.081; silica, 5.455; alumina, 2.957; oxide iron, 1.943; lime, 0.815; magnesia, 0.150; color, 10 820 ash; ginger.

Pratt Coke, No. 2 (Stock pile), Sloss Furnace Co.—Moisture, 0.170; volatile, 1.179; fixed carbon, 90.163; sulphur, 0.858; ash, 8.660; silica, 3.37; alumina, 3.51; oxide iron, 1.153; phosphorus, 0.083.

Watt's Coke.—Moisture, 0.200; volatile, 1.600; fixed carbon, 93.304; sulphur 1.116; ash, 4.780; color ash, grey.

New Castle Coke.—Moisture, 0.1500; volatile, 1.1200; fixed carbon, 91.4600; sulphur, .6610; ash, 6.6000.

Soft Ore, (Stock pile), Tennessee Coal, Iron & Railroad Co.—Peroxide iron, 69.8278; silica, 21.4800; alumina, 4.8391; lime, 0.7875; iron, 48.8795.

Hard Ore (Stock pile) Ten. I & R. R. Co.—Peroxide iron, 55.4481; silica, 11.000; alumina, 2.0019; lime, 20.2947; iron, 38.7859.

Red ore from between Lakeview and Avondale, now owned by Pioneer Iron & Manufacturing Co.—Peroxide iron, 75.543; silica, 18.00; iron, 53.88; phosphorus, 0.13.

Cahaba Coke.—Moisture, 0.0750; volatile, 2.7200; fixed carbon, 91.8465; sulphur, 0.7055; ash, 5.1500; No. 2 coke, moisture, 0.400; volatile, 1.800; sulphur, 0.897; fixed carbon, 8.753; ash, 7.400.

Coalburg Coke.—Volatile, 3.600; fixed carbon, 78.9729; sulphur, 1.0471; ash, 15.4800.

Blue Creek Coke.—De Bardeleben Coal & Iron Co.—Moisture, 0.9500; volatile, 0.4000; fixed carbon, 92.3268; sulphur, 0.8332; silica, 2.98; alumina, 1.302; oxide iron, 1.412; lime, 0.42; magnesia, 0.086; ash, 6.20; color, ginger.

Red "Hematite"—Peroxide, 90.778; silica, 5.060; alumina undetermined iron, 68.545; phosphorus, 0.0556. This ore is in a vein 8 feet thick from Eastern Alabama.

Pratt Coke, No. 3.—Moisture, 0.500; volatile, 1.700; fixed carbon, 90.036; sulphur, 0.800; ash, 6.660. This was an average sample from a lot made at Sloss Furnace Co's coke ovens. Pratt coke, No. 4, sampled from stock pile, Alice furnaces, June 17, 1885, moisture and volatile, 1.600 per cent; fixed carbon, 83.48 per cent; sulphur, 0.72; ash, 14.25 per cent; phosphorus, 0.05 per cent.

The MANUFACTURERS' RECORD solicits correspondence relating to the manufacturing, mining, lumbering and all other material interests of the Southern States. Letters on any phase of Southern development, facts as to the resources of this section, notes of new enterprises to be started, etc., etc., will all find a welcome. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested.

Baltimore to Anniston.

What Baltimore Excursionists Say of Their Trip.

Elsewhere in this issue attention is called to the importance of inducing Northern business men and capitalists to visit the South and investigate for themselves as to the progress of that section. Last week one of the most remarkable excursions which ever went South, when the wealth and business standing of those in the party are taken into account, visited Anniston, Ala. The people of that city decided to extend an invitation to 40 or 50 of the leading capitalists and merchants of Baltimore to come down and see what they were doing. A public meeting was called, and it took just about 10 minutes to organize and raise the money necessary to charter two Pullman cars and to provide for the entertainment of the excursionists while in Anniston. The invitation was accepted and the Baltimore gentlemen went to investigate as to what foundations Anniston was building on. As we have said elsewhere Northern people who visit the South are almost invariably astonished at the progress of that section, and to illustrate this point, and to show what other towns can do in the same line, we give the following interviews with a few of the Baltimore excursionists. Anniston's example might be followed with great profit by dozens of other Southern cities, for not alone Alabama, but almost the whole South would be a revelation to thousands who do not begin to comprehend the glorious climate, the wonderful mineral, timber and agricultural wealth, and the unlimited possibilities of this Heaven-blessed land.

Mr. A. L. Anderson, vice-president of the Walton-Whann Fertilizer Manufacturing Company, one of the largest enterprises in that line in the world, said: "Although I was to some extent prepared to see great progress in the South, yet I was greatly surprised to find in Anniston, a city of such recent founding, such signs of progress. In company with one or two others of the excursionists I made careful investigation and examination of many of the improvements and enterprises in this wonderful city, and was impressed with one great fact, made apparent at every step, and that is—these people have come here to stay." All the buildings, dwellings, as well as the factories, warehouses, churches and public edifices are most substantially built—nothing to indicate an intention or idea of migration. The citizens, also, have that solid, earnest, enterprising air, indicative of persistent, determined men, who have an object in view, that object being the continued development of the amazing natural resources of Anniston. The profits of one venture are immediately invested in another right there at home. I see no reason why the progress, rapid progress of the place should be impeded. With a sober, intelligent, industrious population, the moral atmosphere is as healthful and bracing as the salubrious climate. Anniston's future is assured."

Mr. T. Edward Hambleton, one of our best known bankers, who lingered a day or two in Alabama after the main body of the excursionists had departed, said: "Anniston may indeed be called the 'Model City.' The acumen which saw in that pleasant Alabama valley the site for a flourishing manufacturing town is still there to advise, to guide and to control. Anniston was begun right, her founders looking a far way ahead, and not so far either if she continues to grow in the future as she has in the very recent past. Her streets are wide and well lighted, her buildings, substantial as well as elegant and beautiful, and her business men have intelligence as well as nerve." Mr. Hambleton had before him a map of the "Model

City" and pointed to places of note and interest, such as the Inn, celebrated all over the country as one of the most perfectly appointed hostleries in the South; the enormous coke furnaces, and the great pipe works, etc.

Mr. Charles G. Kerr, State's Attorney for Baltimore City, said: "I was thoroughly astonished to find such a bee-hive of industry and activity as we did find in Anniston. The invigorating climate was enough in itself to stir one to action, while the life, the motion, the busy air of industrious men, precluded all thought of lethargy or laziness. The marvelous prodigality displayed by the lavish gifts of nature are to all appearances fully appreciated by the people of Anniston, who are so earnestly and intelligently developing these natural resources. I can only repeat to you what I said to the good people of that city: The wonderful life and enterprise of the people of Anniston, as compared with the proverbial luxurious ease of the inhabitants before the war, struck me with great astonishment. The immediate past, I might say present, of Anniston justifies the prediction that in a few years more she will be to the South what Pittsburgh has been to Pennsylvania."

Mr. Richard Cromwell, president of the Mt. Vernon Cotton Mills Co., who, by the way, is one of the coolest, most level-headed of our prominent business men, said: "Of course, I had read a great deal about the wonderful city of Anniston, and as in the course of my life, I have read many other wonderful accounts of booming towns, I was prepared to, and had discounted by about fifty per cent. what I had read and heard about the Model City of Alabama. But, I must confess that after my visit to the place, I am prepared to almost exclaim with Sheba's Queen, on beholding the magnificent temple of Solomon—"the half had not been told." All that has been said as to the profuseness of the mineral deposits of that region is true, and even more. I noticed an excellent building stone of wonderful beauty and strength lying right at hand, which is made available with the least possible amount of labor and transportation. It can be quarried and cut to any shape with an axe, so soft is it before being exposed to the air any length of time. But Anniston is also blest with men, active, energetic, hard working men, men who have brains and who use them. Talk about your Yankees! Why there are plenty of men in Anniston that can distance any down-easter that ever trod shoe leather. They know a good thing when they see it, and they also know how to avail themselves of their advantages. I was agreeably surprised in the people of that section. I had pictured to my mind's eye men indolently strolling down to their office some time before high noon, and when there had seen their heels cocked up on their desks, while they let a cigar smoke itself while held between their lips. But I really saw no such sight in that city full of active, stirring business men. No, sir; the right people have found the right place, and there is nothing, in my opinion, to prevent the rapid and substantial growth of Anniston."

Mr. Frank T. Redwood, of Brown & Lowndes, bankers, said "while I enjoyed the trip to Anniston very much, and was completely captivated by the cordial hospitality extended, which reminded me so much of the old time in Virginia when I was a boy, I was more than pleased to note the wonderful progress, almost giant strides made by the people of Anniston in the development of her mineral wealth. All that has been told you by other gentlemen of the excursion party can but faintly portray the realities and possibilities of that favored section. I know a little somewhat about iron, and, without

venturing an opinion as an expert, I will say that some broken pigs submitted to the inspection of the excursionists presented all the appearances characteristic of a superior quality of metal. I shall always look upon the trip with the liveliest feelings of pleasure and gratitude, as illustrating to my mind and eye the great future in store for the South. If it were not for the satisfactory business and social relations I hold here in Baltimore I know of no place to which I would sooner go than to Anniston, for I am quite sure there is ample room and verge enough for energy, enterprise and capital in that new and growing city."

Mr. Summerfield Baldwin and Mr. Andrew Jones, of the large cotton goods commission house of Woodward, Baldwin & Norris, were both deeply and favorably impressed with what they saw in Anniston. Mr. Baldwin said: "I see no reason why a large manufacturing center will not be the result of this wonderful beginning at Anniston. Her natural resources are almost without limit, and her people are honest, sober, industrious. She has churches and schools, but no bar-rooms. The savings of the people are invested in some one or another of the many enterprises of the place, and everybody in Anniston is of Anniston, for Anniston and with Anniston."

Mr. Jones said: "I had read much about Anniston in the MANUFACTURERS' RECORD, which journal, by the way, has done much to aid in the development of the place, as well as of the whole South, and to make known far and wide among business men the wonderful development of nature's rich stores in Alabama. I was as much surprised, perhaps, as anyone else at the evidences which I saw all around me of the thrift, enterprise and public spirit of the citizens of the young town. Her founders have evinced wonderful foresight in laying their plans for a big city. It is not a village slowly outgrowing crooked roads and picket fences, but it has sprung into existence with all the modern appliances resulting from the experience of cities centuries older. That Anniston will continue to grow and prosper, I do not doubt."

KINGSTON, TENN., May 7, 1888.

Editor Manufacturers' Record:

Kingston, the county seat of Roane county, Tenn., is situated on the Tennessee river, at the junction of the Clinch river with the Tennessee, 75 miles above Chattanooga and 40 miles from Knoxville. The town has 1,200 inhabitants, and is located in the center of a fine agricultural region, with inexhaustible beds of iron and coal within six miles. The Tennessee and Clinch rivers are both navigable at this point. The Clinch drains all of upper East Tennessee and a large area of Virginia. Out of this annually is floated 25,000,000 feet of logs, besides immense quantities of small grain.

Kingston has a fine river front and most excellent facilities for the lumber business. An arm of railroad to Emory Gap, five miles distant, on the C. S. R. R., is expected to be built this summer, which will give us a direct railroad line to the various coal mines within 10 miles distance.

Great areas of red fossiliferous iron ore lie within three miles of Kingston that are now being partially worked and the ore shipped to Rockwood, Dayton, Chattanooga and South Pittsburgh.

Parties here are now taking steps towards an iron furnace at this point, and considerable stock has already been taken. Large donations will be made to parties who will locate an iron plant here, besides a large amount of stock will be taken in the enterprise.

G. L. BURKE.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the MANUFACTURERS' RECORD.

Mississippi Notes.

Agricultural and Manufacturing Items.

[Special correspondence MANUFACTURERS' RECORD.]

ABERDEEN, MISS., May 19, 1888.

The first shipment of peaches of the season from Terry, in Hinds county, was made on the 18th.

West Point is confidently expecting to be connected with Atlanta via the Georgia Pacific Railroad by the 1st of October, and with Greenville, on the Mississippi, within 12 months. If the prediction fails it will not be the fault of that plucky little prairie city.

The Vicksburg, Canton & Yazoo City Railroad Co. organized last week. It is proposed to construct the road from Vicksburg to Yazoo City at an early day, and thence to Canton.

Greenwood, in Leflore county, has agreed to subscribe \$20,000 to the stock of the Georgia Pacific Railroad.

The stockholders of the Yazoo City fireproof cotton warehouse last week decided to build an extension of 110x150 feet, to be of brick and covered with corrugated iron.

Yazoo City has just completed a handsome new Presbyterian Church, which will be dedicated on the 30th, Rev. Dr. Palmer, of New Orleans, officiating.

The receipts of cotton at Aberdeen for the season up to May 17 amounted to 26,390 bales. The shipments to May 10 amounted to 25,866 bales, which exceeded the entire shipments for 1887 by 1,511 bales.

The city council of Aberdeen, at its meeting last week, ordered the strict enforcement of the ordinance in regard to repair of sidewalks. Aberdeen claims to have twenty-eight miles of brick pavements.

The oil and saw mills at Rodney, in Jefferson county, on the Mississippi river, were destroyed by fire on the 17th, the loss amounting to at least \$50,000, with but trifling insurance. These mills were the life of the town, and it is to be hoped they may be speedily rebuilt.

The thirteenth annual meeting of the Mississippi State Dental Association occurred at Grenada last week. The attendance was larger than ever before, and included distinguished members of the profession from Illinois, Tennessee, Georgia, Louisiana, Pennsylvania and other States. The contract for water works at Jackson has been awarded on the lowest bid to a company composed entirely of citizens of that city. The company agrees to lay 8 miles of mains and fire hydrants at all points designated by the authorities. They also agree that citizens shall not be charged higher prices than rate elsewhere in the State. The work is to be commenced within 60 days and be completed within a year.

An eligible site upon which to build a handsome church for the colored Episcopalians was purchased in Natchez last week, and the contract for the erection of the building will be given out as soon as plans can be prepared.

The Illinois Central and Meridian & Vicksburg railroads are to build a union depot at Jackson to cost \$40,000. The necessary concessions were granted by the city council last week.

The Light, Heat & Water Co., of Jackson, have advertised for bids for lighting that city with electric lights.

Two new saw mills are to be erected at once in the suburbs of Jackson, on the Pearl river. An enormous supply of the finest timber is available in that vicinity.

It is reported that the Crystal Springs Canning Factory Co., who have \$25,000 invested in their enterprise, have concluded to add the machinery for a woolen factory to their plant, as they have the surplus boiler and engine power for this supplement. Copiah county can already

boast, in the Mississippi Mills, at Wrentham, the most extensive woolen factory in the South.

M. J. K. Choat, of Alcorn county, soldier of the war of 1812, died last week at the age of 93.

The shipments of cotton from Oklaoma this season up to May 14th amounted to 12,156 bales, against 8,803 bales same date in 1887.

Holly Springs is making strenuous efforts in behalf of a cotton factory and the probabilities are in favor of success.

It is estimated that the West Point spinning factory will give employment to 100 hands.

The Georgia Pacific Railroad Company last week let out the contract for the building of their road from Johnson to Winona. This completes the division from the Mississippi river at Greenville to a connection with the Illinois Central line.

The city of Columbus will vote on June 12th upon the proposition to subscribe 5 per cent. coupon bonds to the amount of \$80,000 towards the construction of the proposed Memphis, Oxford & Columbus Railroad.

The Laboring Men and the Tariff.

When Mr. Hemphill, of South Carolina, was defending the Mills bill in the House last week, he said:

"I believe in buying in the cheapest market, and, if you please, I believe in buying labor in the cheapest market." A dozen Representatives saw the mistake and were on their feet in a minute to help him out of his difficulty, but he reiterated his statement. Up in the gallery, who he was making this record, sat for men who took in every word of it and will be sure not to forget. They were William Weihe, of Pittsburgh, president of the Amalgamated Association of Iron and Steel Workers; William Martin, secretary of the same order; John Conklin, district master workman Knights of Labor, Harrisburg, and John Jarrett. "Such speeches as that," they said, "will knock out the free traders."

These gentlemen are there in the interests of the workmen and have come down to do all they can to defeat the Mills bill. They are also the advance guard of great army of representative workmen who will soon pour down on the Capitol to defend their interests against the attack of Mr. Mills and his followers on the tariff. The delegations, it is said, will be the largest which have ever come in the interests of any bill. All classes and all kinds of trades and industries will be represented and they will bring with them the figures to make it very interesting for any Representatives who want to support the Mills bill and to pose as friends of the workmen. Mr. Martin said:

"We are here to fight the Mills bill. We had no chance before the Ways and Means Committee, and now have to do the best we can. We shall call on each member of Congress personally and present our case. We are not ready to see wages reduced and the iron and steel business crippled. We have no idea of coming down to the basis of English wages. Puddling is paid for in England at the rate of \$1.67 per ton. In this country it is \$5.50. Our association thinks the laboring man receives some benefit from protection, and that one illustration shows it. Within the next few weeks we will have an army of workmen here to fight for our rights."

Mr. Conklin is here as a representative of the Knights of Labor, and says that the entire order is opposed to any tariff reduction.—Chicago Journal of Commerce.

Subscribe to the MANUFACTURERS' RECORD. Price \$4.00 a year or six months for \$2.00.

The Thompson Steam Shovel and Wrecking Car.

This machine, manufactured by the Bucyrus Foundry & Manufacturing Co., Bucyrus, Ohio, is one of a recent model, embracing all the best features of their old style and many others that are both new and valuable.

The machine, as shown in the cut, is simple and very strong; wrought iron and steel are used in preference to cast iron wherever possible.

The frame work and body of car and crane are all made of steel channels and I beams, making a durable and serviceable machine.

The crane can be lowered without removal in 20 minutes for transportation.

gard to working of steam shovel that we used on Ohio River Railroad, I beg to say that it did remarkable work. We moved 4,000 yards every 24 hours. Repairs were very light. Shovel was easy to move, economical in working, and the expense of handling 4,000 yards was, on an average, \$58. I have used several shovels, but never worked one with such ease and success as yours. Yours truly, D. M. CAREY." FROM SAN FRANCISCO & NORTH PACIFIC RAILROAD CO., SAN FRANCISCO, CAL.

"We have much pleasure in saying that the steam shovel we purchased of you has proved itself first-class in every respect, and is as good to-day as when we started to work it. The class of material we have handled has been loose clay and rock, and we have loaded as many

to pay the entire cost of the machine. RUDOLPH FINK"

The Bucyrus Foundry & Manufacturing Co. also manufacture steam dredges, tunnel machines, improved mine and tramway locomotives, mining machines and machinery, and an improved ballast unloader that is in use in all parts of the country. A photograph of any of these machines will be sent to parties interested upon application.

Spacing Lengths for Corrugated Roofing.

The secretary of the Cincinnati Corrugating Co. has been sending out a timely circular to builders and mechanical engineers and their correspondents generally all over

would it not be as well, from any standpoint, or better, for reasons previously indicated, to plan to use regular lengths, not necessarily using one length only on each roof, but any regular lengths, or such as can be cut therefrom with least waste?

There is far more corrugated iron now used on wooden than iron framing, and the use generally of corrugated iron is very largely increasing; hence considerable stocks of regular lengths and of different gauges (Birmingham-Haswell) are kept at different points throughout this country, we having to-day over 1,500 tons in stock. Our corrugated iron is made under a press, and not by rolling, as is usual; is coated with the best metallic paint, thoroughly reground in pure linseed oil, and the 2 1/4" corrugated sheets are all provided with our patent edge corru-



THE THOMPSON STEAM SHOVEL AND WRECKING CAR.

The thrusting engine on the crane (not shown in cut) is entirely new and enables the shovel to dig farther in advance, closer to corners and deeper under track than the old-style machines. The hardest material, such as hard pan and shale rock, are easily removed. It is self-propelling and it will run on any standard gauge track in either passenger or freight trains, and can be quickly changed for use as a wrecking car, when it will lift 15 to 25 tons. The capacity of the Thompson steam shovel is 7 cubic yards per minute.

The following are a few letters received by the Bucyrus Foundry & Manufacturing Co. from owners and users of their shovels and wreckers, bearing on these points of excellence:

FROM PAIGE, CAREY & CO., CONTRACTORS, YONKERS, N. Y.

"In answer to your inquiry in re-

as 160 cars, averaging 6 yards per car, in eight hours. We can easily load an ordinary flat car in three minutes. Our disbursements for repairs have been merely nominal, and we have no hesitation in saying that the shovel has fully realized our most sanguine expectations in every regard. Yours faithfully, JAS. M. DONOHUE, Vice Pres't."

FROM MEMPHIS & LITTLE ROCK RAILROAD CO., LITTLE ROCK, ARK.

"In reply to your favor of the 11th inst., can say that ever since we secured a competent man to run your steam shovel, we have had no trouble whatever, and the machine has given entire satisfaction. We have loaded in one day up to 104 cars of over 6 yards each, and though we have worked only about four months, I believe we have saved enough in wages

the country. As it contains many useful and practical suggestions we make a few extracts from it for the benefit of our readers. Says the circular letter:

"First inviting your attention to the fact that the regular lengths of corrugated iron which we carry in stock are 5, 6, 7, 8, 9 and 10 feet, we note that almost invariably architects and mechanical engineers, in specifying lengths of corrugated sheets or spacing supports therefor on iron-framed roofs, name lengths which are different from those carried in stock, obviously necessitating delay and often greater cost, as in such cases the required lengths must be rolled specially or cut from stock lengths, which are carried by all the larger makers of corrugated iron. We judge that in planning disposition of purlins or other supports for the corrugated sheets, the rule seems to be to place them equally distant between centers; but why

gation (explained in our catalogue, pages 9 and 22), making them unequalled for effectiveness."

THE MANUFACTURERS' RECORD, of Baltimore, Md., has but few if any peers in the South for its devotion to Southern interests. —Times, Maryville, Tenn.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

ROME, GA.

OF all the growing cities in the growing South, Rome presents the greatest opening for money-making investments, with surrounding fields as rich as the lands of Goshen, with exhaustless deposits of brown and red Iron Ores and Manganese immediately at hand on all sides, with mountains of Marble and Limestone coming right up to the city, with an abundance of the best Coal easy of access, areas of untouched forests, and with seven railroad outlets and two navigable rivers, Rome stands, in natural advantages, pre-eminently above any other proud and pretentious city within the limits of this proud and ambitious commonwealth.

THE HEALTH OF ROME IS UNSURPASSED.

*THE UNUSUALLY LOW DEATH RATE IS A PHENOMENON,
STANDING WITHOUT A PEER AT 8.40 PER THOUSAND.
NOT ONE CASE OF CATARRH OR CONSUMPTION EXISTS OR
EVER ORIGINATED WITHIN HER LIMITS.*

Rome has 12,000 inhabitants, has invested in colleges and school buildings about \$300,000; in church building over \$100,000; in her new hotel \$125,000; in the dummy line, just completed, over \$50,000. Her manufactories employ 800 hands, with other enterprises now going up. Her system of water-works and sewerage is unsurpassed. The city is lighted with gas, and negotiations for an electric light plant are now pending. The highways leading to the city are all well macadamized. The Post-office Department has recently made Rome a free postal delivery office. The annual business of the city is about \$12,000,000, with the trade constantly increasing. The yearly range of temperature at Rome, between the average highest and lowest, is about 84 degrees; the mean temperature is 60.6 degrees. About seven months intervene between the first and the last killing frosts of the year. There is no better society to be found anywhere.

The Rome Land Company (J. W. Rounsaville, President, T. F. Howell, Treasurer, and J. L. Bass, Secretary and Business Manager) will donate ample grounds to, and otherwise aid, any worthy manufacturing enterprise that may locate here.

Send for circulars and pamphlets.

GADSDEN, ALA.

"The Hub of the Mineral Belt."

— ONLY —

IRON AND COAL

City in Alabama with River Transportation.

THE GADSDEN LAND AND IMPROVEMENT CO.

Own large tract of Eligibly Located Residence Property in the Most Desirable Part of the City,
and have fine location on river and railroad for

MANUFACTURING ESTABLISHMENTS,

And are offering great inducements to manufacturers to locate their plants in this FAVORED LOCALITY. No place in the South has such Wonderful Advantages. Situated in the midst of the RICHEST IRON SECTION in the State, at the foot of Lookout Mountain on the banks of a Navigable River (THE BEAUTIFUL COOSA), surrounded by Forests of the Finest Timber on the Continent, with Fine Building and Fire Clay, and the FINEST BUILDING STONE all around us, with

Uninterrupted Health, and the Purest and Best Water, and Finest Drainage of any City in the State.

Gadsden should become the

— GREATEST MANUFACTURING CENTER OF ALABAMA. —

The Alabama Great Southern, Rome & Decatur, Tennessee & Coosa, Anniston & Cincinnati Railroads, with the ever flowing Coosa, navigable the year round, gives us as *FINE TRANSPORTATION FACILITIES* as any other city enjoys.

We now have Railroad Car Works, Furnaces, Foundry and Machine Works, Saw Mills, Sash, Door and Blind Factory, Furniture Factory, Ice Factory, Paint Mills, Grist and Flouring Mills, Cotton Ginnery, Fine System of Water Works, Electric Lights, Telephone Communication over City, and also to neighboring cities, Atlanta and Rome, Ga.

WE WANT Rolling Mills, Bridge and Bolt Works, Cotton Factories, Woolen Mills, Furniture Factories, in fact all kinds of Factories, even Coffin Factories, (but we want to ship the Coffins to some of the other booming cities.

Liberal Grants of Land will be made by THE GADSDEN LAND & IMPROVEMENT CO., to any of the above-named industries.

FOR FURTHER PARTICULARS ADDRESS

M. L. FOSTER, Sec. & Treas.

THE GADSDEN LAND & IMPROVEMENT CO.

Post-Office Box 145.

GADSDEN, ALABAMA.

ALABAMA'S GREAT MINERAL WEALTH

SURROUNDS THE

★ CITY OF TALLADEGA, ★

Which, according to statistics, is the **MOST HEALTHFUL CITY IN ALABAMA**, and the **County Seat of Talladega County.**

THE CITY HAS A POPULATION OF 5,000, AND ITS POPULATION IS RAPIDLY INCREASING.

TALLADEGA is on the main line of the E. T. V. & G. Railroad, the A. & A. Railroad, and is the present terminus of the T. & C. Railroad. Work is rapidly progressing on the Birmingham & Savannah Air Line Road, between Birmingham and Savannah, and within twelve months this road will be completed via Talladega from Birmingham to Savannah, which will place Talladega on the direct line from Birmingham to deep water on the Atlantic, making

TALLADEGA ONE OF THE BEST DISTRIBUTING POINTS IN THE STATE.

THE CITY HAS

AN EXCELLENT SYSTEM OF COMMON GRADED SCHOOLS,

With a scholastic population of 500, and **THE MOST COMMODIOUS AND ATTRACTIVE PUBLIC SCHOOL BUILDING IN THE STATE.** The main building is a three-story brick, slate roof structure, well ventilated, heated by steam; has accommodations and seating capacity for 500 pupils. This school is owned and sustained by the city. All branches of English literature, foreign languages, music, the sciences and art, are taught for a nominal tuition. Among other educational institutions are the following:

SYNODICAL FEMALE INSTITUTE, Property valued at \$50,000.

D. D. & B. INSTITUTE, Property valued at \$150,000.

BLIND INSTITUTE, (in course of construction,) property valued at \$150,000.

FOSTER COLLEGE, property valued at \$150,000.

No other city in Alabama has so many educational institutions and so many public buildings.

← TALLADEGA HAS THE MOST COMPLETE SYSTEM OF WATER WORKS IN THE STATE. →

The stand pipe has a capacity of 175,000 gallons, and into this reservoir a supply of fresh, clear, pure water is pumped every day from a large spring located in the heart of the city, which discharges over 2,000,000 gallons per day. The gravity pressure from this system is 90 pounds to the square inch in the business portion of the city. The city has broad streets, well macadamized and shaded with beautiful trees, and is well lighted with a **SUPERIOR QUALITY OF GAS.** Sixty fire plugs and forty gas lamps protect against fire and illuminate the streets.

A LARGE FURNACE PLANT gives employment to thousands of hands, and makes a high grade of chilled car-wheel iron from ores, limestone and coal within ten minutes haul by rail, or an hour's haul by wagon. **FOUR LARGE LUMBER MILLS**, with an aggregate daily capacity of 200,000 feet of lumber, cut from the long-leaved yellow Pine of this country. **FOUR BRICK YARDS** are in active operation. A **SASH, DOOR and BLIND FACTORY**, a **FOUNDRY, MACHINE SHOP, FLOUR MILL, COTTON-SEED OIL MILL**, and various other industries are in successful operation, and the **TALLADEGA ICE CO.** cools the thrifty population with pure ice at 50 cents per hundred. Another large furnace plant will be completed within the next ten months. A **Spoke and Handle Factory** and many other industries are projected, with a view to early completion.

Taxable property has increased 100 per cent. within the past twelve months. The rate of taxation is limited in the city charter to half of one per cent., and the city offers an exemption from taxation to all manufacturing enterprises for a period of ten years. The county of Talladega supplies more crude material, in the way of minerals and timber, than any other county in the State. Almost within the corporate limits of the city are extensive deposits of the highest grades of limonite ores, yielding 50 to 58 per cent. metallic iron, with only a trace of phosphorus, and limestone abounds in the greatest abundance. Coal is within twenty miles by rail.

THE TALLADEGA LAND & IMPROVEMENT CO. owns 5,000 lots suitable for residences, business and manufacturing, in and adjacent to the city. Lots are donated to manufacturing enterprises, and liberal inducements offered to actual settlers. **SPRING LAKE PARK** is owned by this company, and it is being made the most attractive resort in the State. The lake covers an area of seven acres, and is a beautiful sheet of clear spring water. Parties seeking a healthy climate, free from malaria and epidemics, and a prosperous city, are invited to visit Talladega. Address for maps, etc.

The Talladega Land & Improvement Co., ✧ Talladega, Ala.

SHEFFIELD, Colbert County, Ala.

The Iron Manufacturing Center of the South.

BEING at the *head of navigation*, and on the *south bank* of the Tennessee river, Sheffield is the *natural outlet* for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best *distributing point* over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. *Four railroads* certain, and several others assured. *Principal shops of Memphis & Charleston Railroad* will be erected here pursuant to written contract. These will employ between *four hundred and five hundred mechanics*, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here.

Five Blast Furnaces Now Under Construction,

Of which one is nearly finished, and the remaining four contracted to completion next spring, have estimated capacity of 700 tons pig iron per day. This is 40 per cent. more than now manufactured at Birmingham, Alabama. Experts do not hesitate to say that *iron can be manufactured more cheaply* at Sheffield than at Birmingham, and its *river transportation facilities* will enable Sheffield iron to reach the principal markets at a saving of from

\$2.00 TO \$2.50 PER TON.

A first-class daily newspaper is regularly issued. Furniture Factory, Bottling Works, Bakery, Dummy Street Railroad, Electric Lights, Agricultural Implement Works, 3 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, and Iron Pipe Works, 15-ton Ice Machine and five-story hotel, with all modern appliances, will be erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers. Postoffice, Telegraph Office and Express Office already established. Paint Works, Stove Works and Compress now being erected. Other manufacturing establishments under consideration, and will probably be built shortly.

Good Water. Free Public Schools and Churches. Health and Climate Unsurpassed.

Drainage excellent. Splendid opening for men of push and energy. No "Old Fogy" element here. No better point for profitable investment.

Sites for Manufacturing Enterprises, And for Free Public Schools and Churches

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, 700; August 21st, 1887, by actual count, 2,583. Increase of population, 800 per cent. in eight months, and only limited by accommodations.

Three years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants.

LIMESTONE of excellent quality for *fluxing iron* in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of *brown hematite iron ore* within twenty miles, along the lines of two Sheffield railroads. The Sheffield & Birmingham Railroad runs through the heart of the *Warrior Coal Fields*, which abound in first-class *coking, steam, gas and grate coal*. Timber is abundant and cheap.

The *Memphis & Charleston Railroad* and the *Sheffield & Birmingham Railroad* are now in operation into Sheffield. The *Louisville & Nashville Railroad Co.* is now extending its *Nashville, Florence and Sheffield* division, which will be completed to Sheffield before July 1st, 1888. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the *best combined river and railroad transportation center* in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. *More are needed. For further information address*

ALFRED H. MOSES, Vice-Prest. and Manager

Sheffield Land, Iron & Coal Co., - Sheffield, Ala.

FLORENCE, ALA

County Seat of Lauderdale County.

At Head of Navigation on Tennessee River, and at Foot of Muscle Shoals Canal,
which will be open Jan. 1st, 1888.

SITUATED on a gently undulating Plateau, 200 feet above high-water mark, surrounded by three large creeks of pure free-stone water. It has a Court House, Two Colleges, Four Public Schools, Six Churches, beautiful wide streets, graded and graveled, and shaded with forest trees; Hotels, fine store houses, Masonic, Odd Fellows, K. of H. and L. of H. lodges. A population of 2,500—moral, social and hospitable.

— The Scenery on Every Side is Picturesque and Beautiful. —

SO MUCH SO THAT IT IS CALLED BY VISITORS

== FAIR FLORENCE. ==

There is no Place on the Continent more Healthful and Salubrious.

MANUFACTURES.

Within the last six months numerous manufactures have been located here, among the number:

Five Large Blast Furnaces,	One Saw Mill,	One Cotton Mill,	Two Brick Machines and
One Rolling Mill,	One Flour Mill,	One Cotton Compress and Ice	Three Hand-Brick Yards.
Three Planing Mills,	One Wooden-Ware Factory.	Factory.	

There are VAST BEDS OF IRON ORE within a few miles North and
IMMENSE COAL FIELDS SOUTH

ACCESSIBLE BY RAILROADS NOW BEING RAPIDLY CONSTRUCTED.

By the 1st of January the Nashville & Florence Railroad will be completed, making three lines of railroad, and the river, thus opening up VAST AREAS OF TIMBER, IRON ORE, COAL, Marble, Limestone, Kaolin, Fire-Clay, and almost every kind of mineral and product.

THE LANDS IN THE SURROUNDING COUNTRY ARE FERTILE AND PRODUCTIVE.

All kinds of Grain, Grasses and Fruits grow to perfection. Springs and Water Courses are numerous, and grazing for Cattle is abundant for eight months of the year.

Pamphlets and maps furnished on application to

Florence Land, Mining & Manufacturing Company.

CONSTRUCTION DEPARTMENT

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

Anniston—Car Works.—The United States Rolling Stock Co., previously reported as having purchased the Anniston Car Wheel, Axle & Car Works with a view to building a very extensive plant, including foundry, rolling mill, &c., have nearly completed their first foundry, 130x84 feet, and have decided to build a second, 160x84 feet. They have let contract for materials for wood-working shop, 1,000x105 feet, machine and blacksmith shop, 825x105 feet, car paint shop, 395x96 feet, and car repairing shop, 500x96 feet. Machinery has been ordered to extent of over \$100,000.

Anniston.—The Clifton Iron Co., and the Shelby Iron Co., each operating two charcoal furnaces, and the Woodstock Iron Co., having two charcoal and two coke furnaces, have consolidated.

Anniston—Horseshoe Factory.—The Universal Horseshoe Manufacturing Co., lately reported as securing a site to build a horseshoe factory and a keg factory, have let the contract for a building, 75x132 feet, to J. H. Neilly. He has commenced work.

Anniston—Hardware Factory.—A company with a capital of \$375,000 have decided to move their hardware factory from the North to Anniston, and have secured a site of 5 acres. Work on buildings will shortly be commenced. Probably 500 hands will be employed.

Anniston—Railroad.—It is reported that the Central Railroad & Banking Co. (office, Savannah, Ga.) have purchased the Anniston & Atlantic Railroad, extending from Anniston to Sylacauga, and will change it from narrow to standard gauge.

Athens—Saw Mill.—A. C. Thompson and S. A. Pugh, of Fort Pillow, Tenn., have been prospecting for a site for a saw mill.

Bessemer—Fire-brick Works.—J. J. Cahill is negotiating to establish fire-brick works.

Birmingham—Buildings.—W. H. Graves, of Montgomery, will erect 12 three-story buildings on Third avenue to cost \$16,000.

Birmingham—Gold Mining.—The Alabama Gold Mining Co., capital stock \$100,000, has been incorporated by Charles G. Brown, George C. Kelley and Robert Chisum.

Birmingham—Cottages.—The Elyton Land Co. will probably soon begin work on a number of cottages at Lakeview.

Birmingham—Instrument Factory.—It is rumored that a musical instrument factory will shortly be erected.

Birmingham—Steel Plant.—The Henderson Steel & Manufacturing Co., previously reported as to increase their capital stock to \$4,000,000, have formed a new company with a capital stock of \$1,000,000 to be known as the Henderson Steel Co. They expect to build the 100-ton steel plant previously mentioned; also a rolling mill and an iron foundry with two or more 5-ton hammers.

Birmingham.—The Pleasant Valley Land & Manufacturing Co. will hold a meeting on June 15 to consider increasing their capital stock.

Birmingham—Building.—Roy & Bro., of Aberdeen, Miss., will erect an iron front building on Morris avenue.

Blocton—Houses.—A large number of houses are reported to be built by the Cahaba Coal Mining Co.

Brewton—Lumber Mill.—Falls, Walker & Co. have received machinery for a lumber mill.

Childersburg—Planing Mill.—R. C. & Henry Carter will build a planing mill.

Dadeville—Handle and Bucket Factory.—J. L. Harwell contemplates starting an axe-handle and bucket factory, and wants to purchase machinery.

Dayton—Dummy Railroad.—R. W. Price and others, previously reported as contemplating building a dummy railroad from Dayton to Faunsdale, 8 miles, have organized as the Dayton & Faunsdale Railroad Co. Their capital stock will be \$50,000. The road is expected to be in operation by December 1.

Decatur—Buildings.—The Decatur Mineral & Land Co. have plans prepared for a two-story block, 50x75 feet, to be erected on Canal street.

Decatur—Building.—I. M. West & Sons have prepared plans for a building to be erected on Bank street, at a cost of \$34,000, by New York parties.

Decatur—Coal Elevator.—The Consolidated Coal Co. will build a coal elevator, &c.

Decatur—Chair Factory.—Thomas M. Brumby, of Marietta, Ga., will, it is reported, start a chair factory.

Decatur—Warehouse.—Brashear & Everett have contracted to build a two-story warehouse, 50x125 feet, for the New England Investment Co.

Decatur—Furniture and Carriage Factory.—L. F. Strader and J. A. Kinney, of Columbus, O., have been prospecting for a site for a furniture and carriage factory.

Decatur—Cotton Mill.—It is rumored that a large cotton mill will be built.

Eufaula—Cotton Mill.—The \$100,000 company lately mentioned as organized by G. W. Comer and others to build a cotton factory have purchased a site and are buying machinery.

Friels—Railroad.—The Alabama & Connelleville Coal & Coke Co. are building a railroad from Friels to the Louisville & Nashville Railroad, 1½ miles.

Gadsden—Dummy Railroad.—The Gadsden Street Railway Co. will build the dummy railroad lately mentioned and lease it to the Gadsden Land & Improvement Co. Work will be commenced in a few days.

Huntsville—Quarry.—F. Heide & Co. have leased a stone quarry and will develop.

Huntsville—Electric Light Plant.—W. C. Harris, Jr., of Tuscaloosa, contemplates, it is said, erecting an electric light plant.

Irondale—Saw Mill and Stone Quarry.—The Irondale Land & Improvement Co. will build a saw mill and open a stone quarry.

Jacksonville—Oil Mill.—A Chicago (Ill.) party is, it is said, negotiating to erect a cotton-seed oil mill.

Jacksonville—Paint Mill.—A paint mill will be erected soon. The Jacksonville Mining & Manufacturing Co. can give information.

Koenton—Saw Mill.—A. J. Wood will build the saw mill lately mentioned.

Koenton—Saw Mill.—Taylor & Terry will shortly erect a saw mill.

Leeds—Brick-yard.—Cousins & Fiser are starting brick-works.

Mobile—Bottling Works.—The Bohemian Bottling Co. will rebuild their works reported in this issue as burned.

Mobile—Residence.—It is reported that J. Curtis Bush will erect a residence to cost \$30,000.

Montgomery—Cider and Vinegar Works.—The capacity of the Friedman Cider & Vinegar Works will probably be increased.

Montgomery—Brewery.—The name of the company previously reported as establishing a brewery in the buildings formerly used by the Alabama Fertilizer Co. is the Montgomery Brewing Co. The capital stock is \$100,000. Henry Waldman, of New York, is president.

Northport—Cotton Factory.—There is talk of a cotton factory being built.

Ragland—Fire brick Works.—The St. Clair Coal & Coke Co. are having clay tested with a view to starting the manufacture of fire-brick, if satisfactory.

Riverside—Furnace.—It is reported that James McBoyer is making efforts to form a company to build an iron furnace.

Sheffield—Machine Works.—The Sheffield Agricultural & Machine Works will put in additional machinery soon.

Sheffield.—A company will probably be formed to manufacture the pump invented by Mr. Blake.

Troy—Ice Factory.—An ice factory is to be built soon. Frank Baltzell can give information.

Tuskaloosa—Tramway.—A tramway is being built along the Warrior river near Tuskaloosa.

Tuskaloosa—Cotton Factory.—The Tuskaloosa Manufacturing Co., previously reported as contemplating adding machinery to their cotton factory, have ordered 10 cards and 2,000 spindles, with intermediate machinery.

ARKANSAS.

Blaine—Saw Mill.—W. P. Cox & Bro. are rebuilding their saw mill lately mentioned as burned.

Dardanelle—Oil Lands.—The Arkansas Petroleum Co., lately reported as formed to develop oil lands by T. J. Darragh, of Little Rock, and others, has been organized with J. A. Woodson as president. \$10,000 of stock have been issued.

Fort Smith—Oil Lands.—The Union Oil Co. has been incorporated to develop oil lands by G. L. Tilley, A. D. Holstein, John Valle, D. C. Morgan and others. The capital stock is \$1,000,000. Mr. Tilley is president.

Fort Smith—Sewerage System.—W. A. Doyle, previously reported as receiving the contract to build a sewerage system, will commence work in a few days.

Fort Smith—Building.—M. M. Breman has contracted to erect a \$40,000 building for the Anheuser-Busch Brewing Co., of St. Louis, Mo.

Fort Smith—Furniture Factory.—The Triggs Furniture Co., capital stock \$10,000, has been chartered by G. D. Ables, S. A. Ables, H. C. Chilton and J. S. Trigg.

Harrison—Canning Factory.—A company is being formed to start a canning factory.

Huntington—Coal Mine.—A coal mine is being developed.

Jonesboro—Hotel.—A hotel is to be built at a cost of about \$20,000. A. L. Malone can give particulars.

Little Rock—Stave and Barrel Factory.—G. H. LaDue, of County Line, Mich., contemplates starting the manufacture of staves and barrels, and has been prospecting for timber lands in Arkansas.

Little Rock—Buildings.—A frame building to cost \$15,000 will be erected for the Charity Hospital. B. J. Bartlett is architect.

Little Rock—Building.—J. M. Moore will build a brick residence to cost \$12,000; Dr. Southall, brick residence to cost \$8,000; L. B. Leigh, brick residence to cost \$7,000, and Mr. Drufes, brick residence to cost \$5,000.

Little Rock—Building.—W. Turner will erect a block of buildings, two stories, 140x70 feet.

Little Rock—Lumber Mill.—J. M. Reed, of Lincoln, Neb., contemplates purchasing timber lands and erecting a lumber mill.

Little Rock—Candy Factory.—Raible & Owen have lately started a candy factory.

Little Rock—Street Railroad.—The Little Rock Street Railway Co. contemplate making several extensions.

Little Rock—Iron Mining.—R. J. Hayes has leased iron ore lands from the Capital Land & Mining Co. and will open mines at once.

Lonoke—Hotel.—The Lonoke Hotel Co. will build a two-story brick hotel to cost \$7,000.

FLORIDA.

Bridgeport—Hotel.—Mr. Cheney will not build a hotel as lately mentioned.

Charlotte Harbor—Wharf, &c.—James Canty has contracted to build a wharf about 800 feet long and a breakwater about 900 feet long. He has commenced work.

Dade City—Sash and Door Factory.—It is reported that a party from Massachusetts has purchased 81,000 acres of timber lands in Pasco county and will build a sash and door factory at Dade City.

Enterprise—Courthouse.—A courthouse to cost \$30,000 is reported to be built.

Jacksonville—Wood and Shingle Mill.—Anderson & Townsend will rebuild and enlarge their wood and shingle mill.

Manatee—Hotel.—A 100-room hotel is reported to be built.

Ocala—Packing-house.—George McKay will erect a packing-house for Bailey & Pemberton.

Orlando—Extract Works.—The Citrus Extract Co. has been formed to manufacture extracts. Peter Mack is manager.

Oviedo—Saw and Planing Mill.—Moyer & Eachim will build the saw and planing mill reported last week.

Pensacola—Street Railroad.—It is reported that the Pensacola Gulf, Land & Development Co. will build a street railroad during the summer.

Sanford—Fibre Factory.—The Tropical Fibre Co. have moved their factory from Sanford to Jacksonville.

St. Augustine—Cigar Factory.—M. Entenza is erecting a new building for his cigar factory.

Tampa—Hotel.—The Tampa Hotel Co. have purchased a site of 15 acres for their large hotel previously reported, and will soon commence work.

Tampa—Jail.—The Pauly Jail Building & Manufacturing Co., of St. Louis, Mo., have been awarded the contract to build the jail previously reported at \$11,571.

Tavares—Cigar Factory.—Messrs. Jones & Sinclair and others have formed a company to build a cigar factory and work will shortly be commenced. About 250 hands will be employed.

GEORGIA.

Albany—Car Works.—An effort is being made to organize a company to start the car works referred to last week.

Americus—Acid Plant.—The Americus Guano Co. will at once add an acid plant to their fertiliser works at a cost of \$25,000. Will be in operation by September.

Atlanta—Gold Mine.—The Atlanta Gold Mining Co., lately mentioned as chartered, contemplate erecting a plant of machinery at their mine in Lumpkin county. W. A. Griffin is secretary.

Atlanta—Glass Works.—The Atlanta Glass Co. will shortly double the capacity of their works.

Atlanta.—The Standard Building & Loan Association has been organized with Harry C. Stockdell as president.

Atlanta—Railroad.—The Atlanta, Atlantic & Great Western Railroad Co. will, it is said, soon begin locating their road. W. H. Pryor is chief engineer.

Atlanta—Machine Works.—E. Van Winkle & Co. have put new boilers in their machine works.

Augusta—Church.—The Methodist City Mission Society will build a church at Woodlawn.

Bremen—Sash, Door and Blind Factory.—A sash, door and blind factory will be started by Joel P. Miller and D. F. New, of Carrollton.

Carrollton—Hotel.—E. G. Kramer, W. W. Fitts and others have formed a company to build a frame hotel to cost \$15,000.

Cartersville—Electric Light Plant.—An electric light plant will be erected shortly. D. W. K. Peacock can give information.

Cedartown.—The Cedartown Building and Loan Association has been organized by J. R. Barber and others.

Columbus—Railroad.—A subscription of \$15,000 is being raised to secure the extension of the Americus, Preston & Lumpkin Railroad to Columbus.

Conyers—Barrel Factory.—T. D. O'Kelly, reported last week as to start a barrel factory, has failed to form a company, and the factory will not be started.

Crawford—Water Works.—A system of water works is talked of.

Dawson—Oil Mill.—The Dawson Oil Co. have added some new machinery to their cotton-seed oil mill, increasing the capacity.

Elberton—Warehouse.—Thomas M. Swift will build a warehouse.

Forestville—Brick-yard.—Johnson & Chapman have lately started a brick-yard.

Griffin—Bagging Factory.—The Griffin Fertilizer & Manufacturing Co. will add the manufacturing of jute bagging, as previously mentioned, and want to purchase machinery.

La Grange—Brick-yard.—H. C. Butler has started a brick-yard.

Macon—Brewery.—A. E. Seifert, 2 Irving Place, New York, contemplates building a brewery, but has not yet made any plans or arrangements.

Macon—Building.—A two-story 8-room building will be erected for the Lewis Normal Institute, and another building to cost \$5,000.

Macon—Brick Works.—J. C. Toole & Bro. have doubled the capacity of their brick works.

Macon—Hotel.—Henry Horne and W. B. Sparks are thinking of building a large hotel to cost \$100,000 or more.

Macon—Church.—The Mulberry Street Church contemplates erecting a new building.

Madison—Warehouse.—The Standard Oil Co. will build a warehouse.

Marietta—Paper Mill.—The Marietta Paper Manufacturing Co., lately mentioned as putting in additional machinery, are also putting in machinery for manufacturing twine.

Prior's—Iron Mine.—T. L. Radcliffe is opening an iron mine for C. A. Wood.

Rockmart—Ochre Mine.—E. H. Cady & Co. have commenced developing their ochre mine.

Rockmart—Broom Factory.—R. S. Davis and T. J. Jenkins contemplate starting a broom factory.

Rockmart—Flour Mill.—The Farmers' Alliance contemplate building the flour mill lately mentioned. W. B. S. Davis can give particulars when anything is done.

Rocky Ford—Grist Mill.—E. E. Fay & Co. have added a grist mill to their saw mill.

Rome—Street Railroad.—G. W. F. Lambkin, J. G. Daily, John C. Printup, J. A. Stansbury and others will charter the North & South Street Railway Co., to build the road referred to last week.

Rome—Residence.—A. B. Hill will build a \$10,000 residence.

Rome—Broom Factory.—Parker, Leech & Parker contemplate moving their broom factory from Tallapoosa to Rome.

Savannah—Publishing.—John H. Estill, publisher Morning News, has, with William H. Estill and others, chartered the Morning News (Co.) with a paid-in capital stock of \$300,000, to do a publishing, printing and book-binding business.

Savannah—Railroad.—E. P. Alexander, J. L. Warren, J. J. Wilder and others have incorporated the Savannah & Columbus Railway Co., capital stock \$1,000,000, to build a railroad from some point on the Central Railroad to Columbus, with a branch to the Alabama State line and to Dublin.

Silver Creek—Iron Mining.—W. L. Hickman, previously reported as developing iron ore mines, is purchasing additional machinery.

Tallapoosa—Glass Works.—A stock company has been formed to start glass works by M. A. Cason, H. Hice and others, and machinery is reported as being purchased. August Weyer is manager.

Tallapoosa—Pump Factory.—A pump factory will probably be started.

Thomasville—Street Railroad.—H. M. Hopkins and J. M. Ried contemplate building the street railroad previously reported, and have asked for a franchise.

West Point—Iron Foundry and Machine Shop.—The West Point Foundry Co. are enlarging their foundry and building a second story to their machine shop.

KENTUCKY.

Covington—Cooperage Works.—B. F. Pratt and Abraham Block have chartered the B. F. Pratt Consolidated Coal & Cooperage Co., capital stock \$30,000, to manufacture cooperage, deal in lands, &c.

Covington—Mining.—Samuel T. Williams and John R. Williams have incorporated the La Ordinanza Mining Co., with an authorized capital stock of \$2,000,000.

Elkton—Hotel.—The contract to build the hotel previously mentioned has been let to King & Price, of Clarksville, Tenn., at \$7,650.

Frankfort—Chair Factory.—The shops reported last week as to be built at the penitentiary will be three stories, 70x370 feet, and are to be used as a chair factory. E. H. Taylor, warden, can give particulars.

Frankfort—Building.—The Mason Foard Co. will erect an office building corner Main and St. Clair streets.

Henderson—Railroad.—McCracken & Co. have resumed work on the Louisville, St. Louis & Texas Railroad between Henderson and Owensboro.

Louisville—Land.—A company is being formed to develop 50,000 or 60,000 acres of land in Eastern Kentucky.

Louisville—Dwellings.—Mrs. Mary G. D. Collins will erect two dwellings to cost \$8,000.

Louisville—Stave Mill.—The Chess & Wymond Co. contemplate building another stave mill.

Louisville—Water Works.—The Louisville Water Co., previously reported as receiving bids for building an engine-house, engine foundation and caisson complete, and for river and inlet work, have decided to do the work themselves.

Louisville—Pipe Line.—A company will probably be formed to build a pipe line from the gas wells in Meade county to Louisville.

Louisville—Armory.—The Louisville Legion contemplate building an armory.

Louisville—Gas.—The Western Building Co. will bore for gas.

Mt. Sterling—Water Works.—There are prospects of water works being constructed.

Nicholasville—Water Works.—Water works are being agitated.

Richmond—Hotel.—The Richmond Hotel Co. have let the contract for the brick work of their hotel, lately mentioned, to W. F. Harris at \$7,300; the carpenter work to Eason & Wiggins at \$7,700, and the plastering to Hay Bros. at \$2,250.

Shelbyville—Gas Works.—H. D. Fitch, of Louisville, has purchased the Shelbyville Gas Works, and will greatly enlarge and improve them.

Winchester—Brick-yard.—White Bros. have started a brick-yard.

LOUISIANA.

Carrollton—Dummy Railroad.—The Carrollton Railroad Co. will probably extend their road to Southport, 2½ miles.

Farmerville—Mill and Gin.—W. H. Hearn has rebuilt his mill and gin, burned last year.

La Fayette—Guano Factory.—A company with a capital stock of about \$20,000 will probably be formed to start a guano factory.

Lake Charles—Lumber Mill.—W. L. Hutchins is increasing the capacity of his lumber mill.

Natchitoches—Railroad.—J. Parker has contracted to ballast the Natchitoches Railroad.

Natchitoches—Timber Lands.—John F. Eddy, of Bay City, Mich., has purchased lately 25,000 acres of timber lands; George E. Avery, Detroit, Mich., 7,000 acres; Charles H. Hackley, Muskegon, Mich., 40,000 acres; Augustus C. Brown, Marinette, Mich., 25,000 acres, and Samuel G. Barker, Chicago, Ill., 15,000 acres.

New Orleans—Factory.—J. W. Adams will start a factory for manufacturing materials used for stuffing mattresses.

Pattersonville—Saw Mill.—Pharr & Williams will at once rebuild their saw mill, reported last week as burned.

Rayne—Rice Mill and Gin.—The Rayne Rice Mill & Manufacturing Co. are building a rice mill, and will add a ginnyery.

Washington—Planing Mill and Wood-working Factory.—J. P. Russell will build a planing mill and a factory for manufacturing sash, doors, blinds, cisterns, window shades, etc.

MARYLAND.

Baltimore—Bank.—The First National Bank contemplate erecting a fine large bank building on South street.

Baltimore—Packing-house.—James Langrail & Bro. will put a 40 horse-power engine and boiler in their packing-house on Aliceanna street.

Baltimore—Church.—The Catholics will build a church at Homestead.

Baltimore—Buildings.—Thomas H. Blick will erect 18 two-story brick buildings on Dallas street, north of Hoffman; Samuel D. Price, 11 three-story brick buildings on Bidle street, 4 on Clifton Place and 4 on Barclay street; A. F. Foster, 6 two story buildings on Presbury street, and the House of the Good Shepherd, a three-story brick building at Mount and Hollins streets.

Black Horse—Bone Mill.—James Barton will erect a steam-power bone mill.

Elkton—Paper Mill.—C. S. Garrett & Son, of Philadelphia, Pa., previously reported as purchasing and to improve the Marley Paper Mills near Elkton are now erecting a new main building, three stories, 74x106 feet, and will enlarge the boiler

house. New engines and boilers will be put in.

Emmitsburg—Bank Building.—Anna Horner & Co. will erect a bank building at once.

Frederick—Fence Factory.—John Baumgartner and Clarence Holtz have started the manufacture of picket fencing.

Hagerstown—Electric Light Plant.—The New York Construction Co., of New York, will, it is said, erect an incandescent electric light plant.

Lamotte—Canning Factory.—L. A. J. Lamotte is building a canning factory.

Middletown—Bank.—The Valley Savings Bank will erect a bank building.

Shawsville—Flint Mill.—William & J. Almony have started a flint mill.

Washington, D. C.—Theatre.—The cost of the improvements to the theatre of James L. Kernan, lately mentioned, will be \$35,000.

Washington, D. C.—Buildings.—Smith & Marr will erect 19 houses on Indiana avenue to cost \$75,000.

Washington, D. C.—Buildings.—W. H. Wetzell will erect 2 houses on Twenty-first street to cost \$6,000; O. G. Wales, a \$10,000 dwelling at 1150 Eighteenth street; A. C. Smith, 2 brick dwellings on Eighteenth street to cost \$9,000; James J. Shedd, a brick building to cost \$17,500; Mrs. S. P. Okie, a \$12,000 brick dwelling at 1726 Massachusetts avenue; George E. Emmons 9 brick dwellings on Union alley to cost \$8,800; J. W. Little, an \$8,000 brick dwelling at 1311 Fourteenth street; R. E. Sinclair, 2 brick dwellings on Sherman avenue to cost \$6,000; E. Woltz, 4 brick dwellings on K street to cost \$8,000; A. K. Brown, a brick store building at 320 Twentieth street, N. W., to cost \$8,000; H. E. Pellen, 2 brick dwellings on Rhode Island avenue to cost \$15,000; A. Fishman, a \$10,000 brick dwelling at 430 Seventh street, N. W., and C. Berger, a \$10,000 brick building at 1401 Rhode Island avenue.

MISSISSIPPI.

Alva—Coal and Iron Mining.—It is reported that a company has been formed to develop coal and iron ore lands.

Crystal Springs—Broom and Cotton Factories.—The manufacture of brooms, cotton yarns and cheap hosiery is contemplated, and information as to machinery is wanted by C. M. Huber.

Greenwood—Railroad.—A subscription of \$20,000 will be made towards the Georgia Pacific extension, previously mentioned.

Johnsonville—Railroad.—The Georgia Pacific Railroad Co., (office, Birmingham, Ala.) previously mentioned as to extend their railroad, have let the contract for the grading and trestles from Johnsonville to Greenwood, 27 miles, to J. S. McTighe & Co., of Memphis, Tenn., and the contract for the 28 miles from Greenwood to Winona, Miss., to Garvey, Jones & Forrest, of Memphis.

Magnolia—Dry-kiln.—Enochs Bros. are building a dry-kiln.

Meridian—Street Railroad.—The Meridian Street Railroad will be extended about one mile. George S. Covert is president.

Pearlington—Poitevant & Favre, operating lumber mills, have incorporated as the Poitevant & Favre Lumber Co.

Rosedale.—Bolivar county has voted a \$150,000 subscription to the Louisville, New Orleans & Texas Railroad to secure an extension of the Huntington branch through Bolivar county to a connection with the main line.

Water Valley—Ice Factory.—The company reported last week as being formed to build a small ice factory have ordered machinery. Robert R. Pate is interested.

Water Valley—Laundry.—A steam laundry has been started by C. S. Blount and S. L. Bitting.

NORTH CAROLINA.

Asheville—Electrical Railroad.—The street railroad lately mentioned as to be built by a company formed by N. Atkinson will be an electrical street railroad. Work will be commenced at once.

Charlotte—Oil Mill.—The Oliver Oil Co. are building another seed warehouse, 50x150 feet, and are thinking of enlarging their oil mill.

Carthage—Saw Mill.—G. C. Graves will build a large saw mill.

Durham—Tobacco Factory.—A stock company is being formed to manufacture plug tobacco extensively.

Graham—Cotton Mill.—Messrs. Scott, Donnell & Scott, who own a cotton mill, have incorporated as the Sidney Cotton Mills, with a capital stock of \$40,000.

Goldsboro—Shoe Factory.—A shoe factory will probably be started.

High Point—Cotton Mill.—\$10,000 have been subscribed towards forming a company to build a cotton mill. C. H. Fisher is interested.

Jacksonville—Saw Mill.—A saw mill is being built near Jacksonville by J. W. Lamb, of Baltimore, Md.

Laurensburg—Oil Mill.—A company is being formed to build a cotton-seed oil mill to cost \$20,000. D. D. McIntyre is interested.

Lincolnton—Hotel.—The Lincoln Lithia Water Co., reported last week, do not contemplate building a hotel at present.

Oxford—Hotel.—The contract to build the hotel previously reported has been let. The cost will be about \$30,000.

Reidsville—Public Improvements.—It has been decided by a popular vote to issue \$20,000 of bonds for public improvements.

Round Knob—Cotton Factory.—It is stated that the company previously reported as formed to build a cotton mill will soon commence work. Major Wilson can give particulars.

Wadesboro—Church.—A \$5,000 brick church will probably be built for the Baptists.

Wadesboro—Hotel.—James A. Leak, Jr., and others, lately mentioned as to build a hotel to cost about \$10,000, have incorporated as the Wadesboro Hotel Co. James T. Bradley is president, and James A. Leak, Jr., secretary and treasurer.

Wilmington—Brick Works.—Roger Moore will rebuild his brick works reported in this issue as burned.

Winston—Leaf Tobacco Factory.—J. C. Miller has contracted to erect a leaf tobacco factory for J. B. Mosely. It will be of brick, four stories, 40x90 feet.

Winston—Church.—The contract to build the church for the Presbyterians, previously reported, has been awarded to Miller Bros. at about \$15,000.

SOUTH CAROLINA.

Charleston—Fertilizer Works.—It is reported that a company will be formed to manufacture fertilizers. C. F. Panknin can give particulars if true.

Charleston—Construction.—Andrew Simonds, G. W. Williams, F. W. Dawson, W. H. Branley and Mr. Cunningham have chartered the Carolina Construction Co., capital stock \$30,000, to build water works.

Dacusville—Coal Lands.—J. C. Alexander is testing a deposit of coal on his land with a view to developing if satisfactory.

Fingerville—Cotton Factory.—Nearly all the stock has been subscribed towards building the cotton factory previously reported. The capacity will be 5,000 spindles. Henry Liles, of Spartanburg, is interested.

Georgetown—Cotton Compress.—William Graves has been negotiating to erect a cotton compress.

Seneca—Water Works.—A system of water works will probably be built.

Union—Railroad.—A subscription of \$30,000 has been voted the Charleston, Cincinnati & Chicago Railroad.

Welche's—Tramway.—It is probable that a tramway will be built from Welche's to the Haile gold mine and to the Brewer gold mine, 12 miles.

TENNESSEE.

Athens—Knitting Factory.—A. J. Eyerly, of Hagerstown, Md., and R. J. Fisher, W. M. Nixon, F. Kamier, J. R. Halloran and E. E. Magill have chartered the Athens Knitting Co., capital stock \$20,000.

Austin's Mills—Planing Mill.—E. M. Speers has lately added machinery to his planing mill.

Bloomington—Tobacco Factory.—J. T. Howard has started a tobacco factory.

Bristol—Planing Mill.—J. Buffum & Co., reported last week as to rebuild their burned planing mill, will increase their capacity 50 per cent. They want to buy machinery.

Bristol—Electrical Railroad.—Messrs. Barker, Reynolds and associates, previously reported as to build an electrical street railroad, have made surveys and will soon begin building the road.

Chattanooga—Machine Shops.—The Chattanooga, Rome & Columbus Railroad Co. will soon begin work on their machine shops previously reported.

Chattanooga—Ship-yard.—Capt. Perry is erecting marine ways at his ship-yard and building a coal hoist.

Chattanooga—Saw Mill.—Heysen Bros., W. Reynolds and W. Thompson, of Jackson, Mich., have purchased the saw mill of Loomis & Wheeler and will greatly enlarge it.

Clifton—Cement Works.—Cement works are to be started shortly.

Columbia—Furniture Factory.—Oakes & Sarvin are building an addition to their furniture factory.

Dayton—Broom Factory.—L. Haworth contemplates erecting a larger building for his broom factory.

Franklin—Hall.—The contract to build the town hall, lately reported, has been let to Vaughn Bros. at \$4,850.

Gallatin—Dummy Railroad.—A company is being formed to build a dummy railroad from Gallatin to Nashville.

Helenwood—Stave Mills.—It is reported that Shaver, Hall & Frisbe are erecting stave mills near Helenwood.

Hickman—Flour Mill.—W. M. Johnson & Bro. have remodeled their flour mill. Their daily capacity is now about 100 barrels.

Holder's Store—Lumber Mills.—The Tennessee Saw & Planing Mills have added another saw.

Humboldt—Railroad.—A \$20,000 subscription has been voted to the Missouri, Tennessee & Georgia Railroad.

Jonesboro—Railroad.—E. L. Deaderick, J. A. Pierce, John P. Smith, A. C. Hoss and Guy C. Sabin have chartered the Jonesboro & Nola Chucky Railroad Co. to build a railroad from the North Carolina State line via Jonesboro to the Virginia State line at or near Kingsport.

Jonesboro—Railroad.—J. J. Hunt, R. M. May, J. W. Hoss, J. A. Pierce, J. P. Smith and others have chartered a company to build a railroad from the North Carolina State line along the Nola Chucky river to the Virginia State line at Arcadia.

Knoxville—Gas Works.—The Knoxville Gas Co. are extending their mains.

Linden—Saw Mill.—W. C. Webb and others contemplate building a saw mill later in the year.

Memphis—Williams & Farnsworth have lately started the manufacture of barrel hoops, &c.

Memphis—Wire and Iron Works.—The proprietors of the Tennessee Wire & Iron Works contemplate organizing as a stock

company with a view to increasing the capacity of their works.

Murfreesboro—Cotton Mill.—It is reported that a company is being organized to build a cotton mill.

Nashville—Furniture Factory.—The Edgefield & Nashville Manufacturing Co. contemplate greatly enlarging their furniture factory. They are now building a dry kiln.

Nashville—Bank.—John Oman has been awarded the contract to erect a building on College street for the American National Bank.

Nashville—Iron Furnace.—The Nashville Iron, Steel & Charcoal Co. have blown in one of their two new charcoal iron furnaces at West Nashville.

Pulaski—Water Works.—The city will decide shortly by a popular vote whether or not to build water works. The mayor will have estimates of cost made.

Robins—Coal Mines.—The Robins Coal & Mining Co. have lately opened a new mine, built short railroad, &c.

Rockford—Cotton Mill.—The Rockford Cotton Mills, previously reported as contemplating putting in additional machinery, are now adding 2,560 spindles.

South Pittsburg—Electric Light Plant.—T. V. Ryan, representing the Silvey Electric Co., of Lima, O., is negotiating to erect a plant.

Tennessee City—Saw Mill.—J. C. Foster has located a saw mill.

Vale Mills—Cotton Mill.—The Vale Mills Co. have lately put in additional machinery.

Winchester—Broom Factory.—A broom factory will be started.

TEXAS.

Athens—Canning Factory.—A company is being worked up to start a canning factory.

Austin—Depot.—The Missouri Pacific Railroad Co. have let the contract to build their passenger depot previously reported to August Wilke. It will cost about \$35,000.

Austin—Furniture Factory.—The M. Kreisale Co. are building a three-story furniture factory, 50x160 feet.

Ballinger—Courthouse.—The commissioners will receive proposals for building a courthouse until July 1.

Beaumont—Lumber Mills.—J. S. & W. M. Rice have put new engines of 250 horsepower in their lumber mills along the Sabine & East Texas Railroad.

Beaumont—Electric Light Plant, Ice Factory, &c.—The water works previously reported as built by Thomas & Gorman for the city have been leased by a company who intend to erect a 15-ton ice factory and refrigerator, electric light plant, steam laundry and a telephone and fire-alarm systems. Machinery is wanted. Thomas & Gorman can give particulars.

Brenham—Pipe Line.—It is reported that James B. Gilmer, of Waco, previously mentioned as boring for gas near Brenham, is arranging to pipe it to Brenham.

Cleburne—Depot.—A. J. Baxly, of Ennis, has received the contract for the brick work of the depot for the Atchison, Topeka & Santa Fe Railroad.

College Station—Buildings.—Additional buildings will be erected during the summer for the Agricultural & Mechanical College.

Corsicana—Flour Mill.—The Texas Mill & Elevator Co. contemplate increasing the capacity of their flour mill from 300 to 300 barrels daily.

Cuero—Corn Mill.—The Buchel Milling Co. contemplate increasing the capacity of their corn meal mill to 200 barrels daily.

Dallas—Bridge.—The city council and the county commissioners are considering the erection of another bridge across the Trinity river.

Dallas—Railroad.—The Texas Trunk Railroad Co. are making estimates as to the cost of putting their road in thorough repair with a view to extending it.

Dallas—Church.—Brown Archy has contracted to build a church at West Dallas for the Methodists.

Dallas—Iron Works.—Harry Bros. have broken ground for a building, 100x100 feet, to be used for the manufacture of iron goods. About 50 hands will be employed.

Edna—Ginnery.—A large steam ginnery is being built by Shorre Bros.

El Paso—Railroad.—Morris R. Locke & Co., who have contracted to build the Kansas City, El Paso & Mexican Railroad from El Paso to White Oaks, N. M., will probably soon commence work. They have contracted to finish the first 10 miles by October 26.

Fort Worth—Cigar Factory.—Louis P. De Monche will start a cigar factory.

Fulbright—Grist Mill and Gin.—A company has been formed to erect a grist mill and gin. B. L. Burrus is president.

Galveston—Gas.—There are prospects of a company being formed to bore for gas.

Galveston—Coal Chute.—The Galveston Wharf Co. will erect a coal chute.

Gilmer—Dry-kiln.—A. Gilmer will build a large dry-kiln.

Gonzales—Railroad.—The San Antonio & Aransas Pass Railroad Co. (office, San Antonio) are making surveys for the extension of their road to Gonzales, previously mentioned. Grading will probably soon be commenced.

Hawkins—Planing Mill.—A planing mill has been erected.

Henderson—Canning Factory.—It is reported that a canning factory has lately been started.

Jefferson—Cotton and Woolen Mill.—H. Rives has purchased a small cotton mill and added machinery for manufacturing woolen yarns. He is thinking of enlarging it if successful.

Marshall—Courthouse.—Proposals for building the courthouse previously mentioned will be received until June 11 by W. T. S. Keller. Toser & McQuirk, of Dallas, are the architects and can give particulars.

McDade—Earthenware Factory.—The capacity of the McDade Earthenware Factory will soon be enlarged.

Orange—Machine Works.—O. B. Greeves has lately doubled the capacity of his machine works.

Orange—Lumber Mill.—Lutcher & Moore have lately added some new machinery to their lumber mill.

Orange—Furniture Factory.—It is reported that a furniture factory will soon be started.

Pittsburg—Implement Factory.—A company is being formed to start an agricultural implement factory.

San Angelo—Grading.—The contract for grading for the extension of the Atchison, Topeka & Santa Fe Railroad from San Angelo to Ballinger, previously mentioned, has been let to Ricker & Lee, of Galveston, at \$40,000.

San Antonio—Hotel.—The Menger Hotel will be enlarged and improved.

Sherman—Machine Works.—The Sherman Iron & Machine Works, lately reported as chartered, have purchased the Sherman Iron Works, and intend to greatly enlarge both their foundry and machine shop.

Stephenville—Flour Mill.—James Beech has ordered machinery to remodel his flour mill to the roller system. The daily capacity will be 200 barrels.

Terrell—Opera-house.—An opera-house will be built.

Timpan—Cotton Compress.—A cotton compress is projected.

Tyler—Depot.—The International & Great Northern Railroad Co. (office, Palestine) will build a new passenger depot at once.

Village Mills—Planing Mill, &c.—The Texas Tram & Lumber Co. are building a large planing mill and a sash, door and blind factory.

Waco—Hotel.—The Lehman House will be improved and greatly enlarged by D. D. Fairchild at a cost of \$50,000.

Waxahachie—Cotton Compress.—The erection of a cotton compress is again being agitated, and arrangements for its erection will probably soon be made.

Waxahachie—Well.—The Waxahachie Ice Co. will sink an artesian well.

Wayne—Railroad.—The North Texas Land & Timber Co. are making surveys for a new logging railroad.

Whitewright—Flour Mill.—It is rumored that the Whitewright Milling Co., chartered about a year ago, contemplate soon commencing work on their mill.

VIRGINIA.

Alexandria—Clock and Watch Factory.—The Gray Clock Co. has been incorporated to manufacture clocks, watches, etc., with A. C. Stevens, of Washington, D. C., as president; C. W. Tonque, Baltimore, Md., vice-president, and J. Clark, Baltimore secretary and treasurer. The capital stock is to be not less than \$500,000.

Berkley—Wood-working Factory, &c.—John W. Jones is building a machine and wood-working factory, and wants to purchase an engine and boiler, 20 to 30 horsepower, 24-inch planer, 36-inch band saw, No. 2 scroll saw, variety saw, shaping machine and a post-boring machine.

Berkley—Laundry.—O. R. Diggs will start a steam laundry, and wants to purchase machinery.

Big Stone Gap—Buildings.—Charles F. Ballard will erect a bank building, and the Ballard & Ballard Co., of Louisville, Ky., a warehouse.

Blue Ridge Springs—Hotel.—The Blue Ridge Springs Hotel, reported in this issue as burned, will be rebuilt by next year.

Charlottesville—Church.—Spooner & Son have contracted to enlarge and improve the Methodist church at a cost of \$7,000.

Currioman (P. O. Montross).—A canning factory is being built near Currioman.

Green Forest—Tannery.—Appold & Co. will enlarge their tannery during the summer.

Hague—Canning Factory.—A canning factory is reported to be built.

Harrisonburg—Iron Mining.—J. T. Pace, of Washington, D. C., and Senator Jones, of Nevada, have purchased manganese ore lands, and are developing.

Jerusalem—Saw Mill.—H. C. Moore will at once rebuild his saw mill reported last week as wrecked by an explosion.

Liberty—Iron Works.—Daniel Webster, of Pennsylvania, has lately been prospecting with a view to establishing large iron works to cost not less than \$30,000.

Lynchburg—Buildings.—Mrs. Henschuch will erect two iron front buildings on Main street to cost \$25,000.

Lynchburg—Can Factory.—Dinguid & Moon have started a can factory. They want to purchase a machine for putting the tops and bottoms on cans.

Norfolk—Machine Shop.—T. A. Perry contemplates starting a machine shop, and will want machinery when he fully decides to do so.

Norfolk—Dry Kiln.—It is reported that Carman & Co. will build 3 new dry kilns at Atlantic City.

Norfolk—Bridge.—The Norfolk & Western Railroad Co. (office, Roanoke) previously reported as to build a new bridge over the east branch of the Elizabeth river, will

shortly erect a temporary bridge to be used while the new bridge is being built.

Portsmouth—Car Works.—The Virginia Car Equipment Trust & Motive Power Manufacturing Co. has been chartered to manufacture cars, locomotives, etc., with Thomas Breen, of Knowlton, Pa., as president. The capital stock is to be not less than \$300,000 nor more than \$3,000,000.

Portsmouth—Saw Mill.—A large saw mill is to be erected at the United States navy-yard at a cost of \$47,000. The building will be two stories, 79x360 feet.

Pulaski City—Church.—The Presbyterians have started plans to build a church to cost about \$8,000.

Richmond—Stove Works.—The Southern Stove Works have lately been enlarged.

Richmond—The Sanitary Faucet Co. has been incorporated, with Myer Dittenhoefer as president.

Richmond—Building.—The contract to erect the Virginia Agricultural & Mechanical Society's exposition building, lately mentioned, has been let to J. F. Sitterding at \$46,700.

Richmond—Factory.—The National Sanitary Appliance Co. has been chartered to manufacture brass and other metal worked with rubber. Myer Dittenhoefer is president; Robert G. Schmidt, secretary, and James H. Ferguson, treasurer.

Richmond—Blooming Mill and Nail Factory.—The Old Dominion Iron & Nail Works Co. contemplate building a blooming mill for handling the ingots from their Bessemer steel plant; also increasing the output of their horseshoe factory.

Richmond—Stove Works.—The Richmond Stove Co. have built an addition, 75x80 feet, to their foundry, and enlarged their other buildings.

Roanoke—Temple.—The contract to build the temple for the Masons, previously reported, has been let to the Lexington Manufacturing Co., of Lexington, Va., at about \$20,000. Work will be commenced at once.

Suffolk—Planing Mill.—Daniel McGuire & Son and others of Philadelphia, Pa., will build the planing mill lately mentioned, and have commenced work. They will organize as a stock company.

Suffolk—Electric Lights.—Proposals for lighting the city with electric lights will be received until June 15. Address the council committee on public improvements.

Tazewell C. H.—Planing Mill.—James P. Kelly has added a planing mill to his flour mill.

Tazewell C. H.—Hotel.—Parties are negotiating to build a hotel.

Waverly—Sash, Door and Blind Factory.—A sash, door and blind factory is being erected.

WEST VIRGINIA.

Alderson—Buildings.—Buildings to cost \$8,000 will be erected for the Alleghany Collegiate Institute. Frank Follansbee can give particulars.

Charleston.—The capital stock of the Cheat River Boom & Lumber Co. has been increased \$24,000.

Fayetteville—Hotel.—There is talk of a hotel being built.

Friendly—Flour Mill.—J. Shrake & Son are building a roller flour mill with a daily capacity of about 200 barrels, and will shortly have it in operation.

Guyandotte—Planing Mill.—Tauber & Wilson are adding planing machinery to their saw mill.

Harper's Ferry—Pulp Mill.—The Shenandoah Pulp Co. will, it is stated, increase the capacity of their pulp mill about 50 per cent.

Huntington—Electric Light Plant.—J. L. Caldwell, lately mentioned as building an electrical street railroad and as purchasing a

controlling interest in the Huntington Electric Light Co. and to add machinery to the plant to operate the two enterprises, has organized the Huntington Electric Light & Street Railway Co., capital stock \$100,000, to operate both enterprises. R. A. Matthews is president.

Huntington—Rolling Mill.—The Ercign Car Works Co. will add a rolling mill to their works during the summer, and have purchased the necessary additional ground.

Ronceverte—Furniture Factory.—John Luppert is building a two-story furniture factory, 56x103 feet, and will build a dry house, 40x50 feet. Machinery is reported as ordered.

Rowlesburg—Railroad.—A railroad is proposed from Rowlesburg to Uniontown, and will probably be built.

Tunnelton—Coal Mining, &c.—Arnold J. Bonafield and William H. Watkins, of Tunnelton; John O. Baker, of Evansville, and John W. Mason and Melville M. Jeffreys, of Grafton, have chartered the West End Coke Co., capital stock \$100,000, to mine coal, manufacture coke, fire-brick, etc.

Wheeling—Iron Works.—The Whitaker Iron Co. will put a large new engine in their works.

Winfield—Mill.—F. D. Gilfillen will put new boilers in their Pioneer Mills.

W. S. Dove, of Howard City, Mich., wants a location in the South for a saw mill where he can buy logs or timber as needed or to saw for parties who own timber and want it manufactured.

BURNED.

Atlanta, Ga.—The Georgia Novelty Works.

Baltimore, Md.—The brick slaughter house of Mrs. George Dimling, at Calverton Blue Ridge Springs, Va.—The Blue Ridge Springs Hotel owned by P. F. Brown; loss \$30,000. Will be rebuilt by next year.

Clanton, Ala.—The saw mill of W. H. Burton, 6 miles from Clanton.

Hagerstown, Md.—The factories of the Hagerstown Wheel Co. and the Hagerstown Spoke & Bending Co.; loss \$25,000.

Jonesboro, Ark.—The saw mill of L. M. Cole, 7 miles from Jonesboro.

Mobile, Ala.—The works of the Bohemian Bottling Co. Will be rebuilt.

Plaquemine, La.—The dry house of the Cypress Shingle & Lumber Co.

Rodney, Miss.—The Rodney Saw & Oil Mills; loss \$50,000.

Tatum, Miss.—The mill and gin of W. W. Holly.

Westonia, Ga.—The dry kiln of S. R. Whiston & Bro.

Wilmington, N. C.—The brick works of Roger Moore. Will rebuild.

Winona, Texas.—The saw, shingle and grist mill and cotton gin of T. P. Kinners.

Ice Factory and Electric Light Plant to be Erected.

BEAUMONT, TEXAS, May 16, 1888.

Editor Manufacturers' Record:

The city of Beaumont has just completed a system of water works, which they have leased to a company, in connection with which this company intends erecting at once an electric light plant, 15-ton ice machine, refrigerator, steam laundry, telephone and fire-alarm systems, and desire machinery for these plants. Thomas & Gorman can give information. X.

MONTGOMERY, ALA., May 21, 1888.

Editor Manufacturers' Record:

The Standard Club will erect a four-story brick building with pressed brick front, costing complete, with grounds, \$80,000. Will have all modern improvements. D. ABRAHAM, JR., Secy,

MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Bagging Machinery.—The Griffin Fertilizer & Manufacturing Co., Griffin, Ga., want to purchase machinery for manufacturing jute bagging.

Broom Machinery.—C. M. Huber, Crystal Springs, Miss., want information as to the cost of broom machinery.

Can Machinery.—Diuguid & Moon, Lynchburg, Va., want to purchase a machine for putting the tops and bottoms on cans.

Cotton Machinery.—C. M. Huber, Crystal Springs, Miss., wants information, &c., as to machinery for manufacturing cotton yarns and cheap hosiery.

Electric Light Machinery.—R. G. Ward, 230 West Townsend street, Baltimore, Md., wants estimates, spot cash f. o. b. New York, dynamos to generate current for 4000 16 candle-power incandescent and 100 arc electric lights; 5,000 16 candle-power lamps; 125 arc lamps; 10 miles of street copper; 10,000 feet of inside wire, with all requisite central station fixtures for a first-class plant, with specifications, exclusive of power.

Electric Light Machinery.—A company at Beaumont, Texas, want to purchase electric light machinery. Thomas & Gorman can give particulars.

Electric Lights.—Proposals for lighting Suffolk, Va., with electric lights will be received until June 15 by the council committee on public improvements.

Gas Works.—J. Allen Brown, Salisbury, N. C., wants to correspond with parties desiring to make estimates for remodeling their works, so as to make gas by a more modern and cheaper process.

Handle and bucket machinery is wanted by J. L. Harwell, Dadeville, Ala.

Ice Machinery.—Machinery for a 15-ton ice factory and refrigerator is wanted by a company at Beaumont, Texas. Thomas & Gorman can give particulars.

Laundry Machinery and Fire Alarm Apparatus, &c.—Machinery for a steam laundry and fire-alarm and telephone system is wanted by a company at Beaumont, Texas. Address Thomas & Gorman.

Laundry machinery is wanted by O. R. Diggs, Berkley, Va.

Letter Boxes.—The National Letter Box Co., 12 Madison street, Memphis, Tenn., will correspond with manufacturers with a view to having their boxes manufactured.

Planing Mill Machinery.—J. Buffum & Co., Bristol, Tenn., want machinery to rebuild their planing mill, lately burned.

Steam Heating Apparatus.—Sealed proposals, in duplicate, for furnishing a steam heating apparatus for the Old Army Medical Museum Building and annex on Tenth street, will be received until June 1 by C. H. Hoyt assistant quartermaster U. S. Army, Washington, D. C.

Tannery Machinery.—A. M. Irving, Kansas City, Mo., wants the address of parties who can furnish machinery for tanneries.

Traction Engine.—J. L. Harwell, Dadeville, Ala., wants to purchase a traction engine.

Wood-working Machinery.—John W. Jones, Berkley, Va., wants to purchase an engine and boiler, 20 to 30 horsepower, 24-inch planer, 36-inch band saw, No. 2 scroll saw, variety saw, shaping machinery and a post boring machine.

Saw Mills to be Erected.

KOENTON, ALA., May 9, 1888.

Editor Manufacturers' Record:

A. J. Wood will soon have in a saw mill, and Messrs. Taylor & Terry, of this place, will also erect a saw mill for lumber and timber. Both mills will be in operation by 1st of July next. P.

To Manufacture Hardware.

NEW BRITAIN, CONN., May 18, 1888.

Editor Manufacturers' Record:

I am here for the purpose of getting my machinery and household goods together for shipment to Cartersville, Ga., where I intend to establish myself in the manufacture of hardware specialties, new articles of my own inventions. GEO. GEER.

Will Add Machinery.

OREGON, TENN., May 17, 1888.

Editor Manufacturers' Record:

We are going to add to our cotton machinery, as follows: 8 cards, 4 spinning frames, and drawings, speeders, etc.

HENRY WARREN & SON.

Flour Mill.

MORRISTOWN, TENN., May 17, 1888.

Editor Manufacturers' Record:

I have a good water power, and have constructed to be run by it a first class bush flouring mill, with all modern appliances. I run with same power saw mill, lath mill, planer and matcher and spoke lathe. T. C. CAIN.

Will Rebuild Planing Mill.

BRISTOL, TENN., May 16, 1888.

Editor Manufacturers' Record:

We are going to rebuild at once, and intend to increase the capacity of our mill about one half. Shall want all new machinery. J. BUFFUM & CO.

Building Rice Mill.

RAYNE, LA., May 18, 1888.

Editor Manufacturers' Record:

The Rayne Rice Mill & Manufacturing Co. is having its mill completed in order to be ready for the present season. The building is a large and imposing structure; the machinery is nearly complete, with the exception of beltings, elevator cups, etc. A good cotton gin is proposed to be erected, adjoining the rice mill, and will be run by the same engine. A. DUCHY.

Can Factory.

LYNCHBURG, VA., May 19, 1888.

Editor Manufacturers' Record:

We have just started a factory for manufacture of tin fruit cans. We want a good machine for putting bottoms and tops on fruit cans. DRUGUID & MOON.

To Mine Coal and Manufacture Coke.

TUNNELTON, W. VA., May 22, 1888.

Editor Manufacturers' Record:

We have organized the West End Coke Co. for the purpose of mining coal, making coke, &c. A. J. BONAFIELD.

KNOXVILLE, TENN., May 19, 1888.

Editor Manufacturers' Record:

We have the contract for masonry of bridge across Clinch river; also for building two miles of road, including tunnel, for the Powell's Valley road.

JONES & STANSILL.

JEFFERSON, TEXAS, May 19, 1888.

Editor Manufacturers' Record:

Mr. J. H. Coster has contract for the United States courthouse at this place for about \$31,000. He is from Baltimore, Md. G. W. COSTER.

Mobile's New Suburb.

MOBILE, ALA., May 19, 1888.

Editor Manufacturers' Record:

Among the many improvements projected in and around Mobile there is nothing promising richer returns to the investors than the new suburb now being platted by a Michigan syndicate.

The location of the city compels the residence portion of the place to move westwardly, and the keen Western judgment appreciated the fact and will profit by it.

A syndicate of Michigan men, headed by Mr. Geo. T. Warren, ex-mayor of Flint, Mich., have purchased about 100 acres of land on Government and Ann street, and will lay out new streets and city lots, besides building residences for their own use and for sale.

Any one acquainted with Mobile and its topography will wonder that this splendid property has never before been so utilized. It is located but two miles from the river front on one of the finest streets in America, which, below this tract, is lined on both sides with elegant homes, and if the plans of the present owners are carried out Mobile will be given a rich addition to its beautiful suburban surroundings. The property now stands in the name of the Mobile Land Improvement Co., a close corporation. The plans of the company embrace the laying out and presentation to the people of a handsome park and the construction of many streets and an avenue which will rival the beauties of famous Government street itself. The gentlemen who have bought this valuable property hold it out of the market, but by next fall they will offer lots for sale. T. G. O.

Roller Flour Mill.

FRIENDLY, W. VA., May 18, 1888.

Editor Manufacturers' Record:

A new flour mill is being built at this place and is nearly completed. It is five-story high, full roller process and quite a fine mill. Estimated capacity is 200 brls. per day; name of firm is J. Shrake & Son. ROSA OWENS.

Contemplate Building Blooming Mill.

RICHMOND, VA., May 21, 1888.

Editor Manufacturers' Record:

We contemplate the building of a blooming mill for handling ingots from our 3-ton Bessemer plant. Our horseshoe factory is in full operation turning out very fine shoes, and an increase in its output is also contemplated. OLD DOMINION IRON & NAIL WORKS CO.

Machine Works to be Enlarged.

SHERMAN, TEXAS, May 19, 1888.

Editor Manufacturers' Record:

It is our intention to enlarge the Sherman Iron Works, just bought by us, and it will be our endeavor to do so in the near future, to a capacity larger than any works in the southwest, both in foundry and machinery capacity. SHERMAN IRON & MACHINE WORKS.

Building New Shoe Factory.

GAINESVILLE, GA., May 18, 1888.

Editor Manufacturers' Record:

We are now building a factory, capacity 500 pairs of shoes per diem. Will begin manufacturing in new building July 1. SELL & YEARWOOD.

Erecting Ice Factory.

FLORENCE, ALA., May 18, 1888.

Editor Manufacturers' Record:

We are building an ice factory; putting in a 5-ton machine. Building is 30x50. JAMES PARNELL, Manager.

Gold Mining in Georgia.

ATLANTA, GA., May 7, 1888.

Editor Manufacturers' Record:

The Atlanta Gold Mining Co. has applied for charter with a capitalization of \$500,000, paid-in, for the purpose of developing what I regard (from having thoroughly prospected it) the finest gold property east of the Rockies, situated in Lumpkin county, Ga. There is on this property two "belts" varying in width from 50 to 500 feet, running diagonally across said property a distance of about five-eighths of a mile, and each "belt" carrying several very rich veins, as is evidenced from several assays made from the ore of the different veins. Near the center of the property there is a natural "break" or gulch about 300 feet wide and 300 feet deep, through which runs a bold, never-failing stream or creek. From the bottom of this "break" both belts can be worked in both directions without any of the usual heavy expense of removing a large amount of dead stuff, or non-vein matter, before exposing or getting at the regular veins. An assay, made by Randolph E. Fishburne, Esq., of Chicago, of the ore from the principal vein of the larger of the two belts gives the following results per ton: Silver 1.6 oz., value \$1.60; gold 5.4 oz., value \$108, total value per 2,000 pounds \$109.60. From the peculiar and unusual elevation of this belt above water level or the drain afforded by the break in the center of this property, it will be comparatively easy to work at least 150 feet deep on this belt by the hydraulic process. All the conditions for this plan of operation are here present, including softness of belt and elevation of material to be worked, together with water supply for piping, with 140 feet pressure at nozzle or giant. The opinion of experts who have examined this property is that with these conditions and this process 1,000 tons of the belt material, equivalent to about 100 to 150 tons of the regular vein matter, can be manipulated per day with the plant proposed to be erected by the above company. I think it safe to predict that at no distant day this portion of the South will be regarded as the finest gold-mining section in the United States, and even now investors and prospectors from nearly every State in the Union are turning attention to and investigating this rich territory. W. A. GRIFFIN, Secty.

Enlarging Cotton Mill.

BLACKS, S. C., May 17, 1888.

Editor Manufacturers' Record:

Our company last year improved and increased their plant to the extent of \$16,000, and we are now putting up necessary buildings to accommodate 2,000 additional spindles and all other preparatory machinery and will have the same in operation by the 1st July. CHEROKEE FALLS MFG. CO.

To Build Cotton Mill.

SPARTANBURG, S. C., May 12, 1888.

Editor Manufacturers' Record:

We are soliciting stock, and have almost all placed, to build a 5,000 spindle yarn mill at Fingerville. Will be ready to spin in 15 months. J. B. LILES & CO.

SHEFFIELD, ALA., May 14, 1888.

Editor Manufacturers' Record:

We have been unable to fill our orders promptly, and are now very much behind. We expect to put in additional heavy machinery in the near future. THE SHEFFIELD AGRIC. & MACH. WORKS.

PRUNTTOWN, W. VA., May 15, 1888.

Editor Manufacturers' Record:

W. J. Curry has purchased the Kemble Mills; original cost \$14,000. The flouring mill will be thoroughly overhauled and new bolting cloths put in. G. W. KERN.

New Enterprises at Cartersville—Iron Furnace Projected.

CARTERSVILLE, GA., May 16, 1888.

Editor Manufacturers' Record:

The citizens of Cartersville have organized a land company and have put the ball of improvement in motion, and if energy and enterprise will build up and improve our city it will be done. The object of the land company is to donate to manufacturers sites for their plants and to render such other aid as may be agreed on by the directory and the parties seeking locations. Already Mr. A. T. Withers, of Tuscaloosa, Ala., has moved here and is now engaged in erecting a building for foundry purposes. Also a Mr. Geer, from Connecticut, has made his arrangements to move to this place and establish a variety works. Some of our citizens have agreed to erect an electric light plant and will do so as soon as the proper arrangements can be made with the city fathers.

On the 5th inst. Gov. John B. Gordon delivered a most admirable address in this place on our climate and resources, and on the 12th inst. Mr. Evan P. Howell, managing editor of the Atlanta Constitution, and Mr. Joseph M. Brown, general freight and passenger agent of the Western & Atlantic Railroad, each delivered addresses on the same line.

Our people are not a manufacturing people and do not know how or where to begin, and while there is, perhaps, not a man, woman or child in our county who do not know something of our resources, they feel the need of a leader; hence these addresses. And as soon as the addresses were over a subscription for stock to build an iron furnace was put in circulation and the success with which the enterprise met was most encouraging.

Real estate is steadily advancing, our citizens are cheerful and every one is up and doing, and from present appearances the day is not far distant when Cartersville will rank with the best manufacturing cities of the South, because here we have as good iron and manganese as can be found in any country. We already have two ochre manufactories in operation with crude ochre enough to run a dozen such establishments. We have newly discovered gold veins reported to be worth from \$50 to \$75 per ton. A gentleman has just left my office who informs me he has just found a mica mine which will square ten inches, also a bed of pure fire clay, and, in fact, there are continually new discoveries being made all over our section of the State.

The Etowah Iron & Manganese Co. will soon have their railroad completed to Hurricane Mountain, and then the iron ore from that point will be moved in large quantities. They have also built a tramway from Allatoona to the Crow ore bank, and are mining and shipping ore in large quantities.

There is now a well organized corps of engineers surveying the line from this city to the city of Gainesville, Ga., and when that line of road is completed, we think we will have access to as good a country for hardwood, for agriculture and minerals as there is in the South.

D. W. K. PEACOCK.

Enlarging Foundry and Machine Shop.

WEST POINT, GA., May 22, 1888.

Editor Manufacturers' Record:

We are building second story to our machine shop and enlarging our foundry. Our business has grown so rapidly for past few years we have had to add several new machines and enlarge our works. The outlook is very encouraging.

WEST POINT FOUNDRY CO.

LAMOTHE, MD., May 23, 1888.

Editor Manufacturers' Record:

I am building a canning house at this place (Finksburg Station, Western Maryland Railroad). L. A. J. LAMOTHE.

Tuskaloosa's Water Transportation.

Some weeks ago we gave the views of Mr. S. P. Wells, of Parkersburg, W. Va., upon the opportunity of developing a great coal shipping business from Tuskaloosa, Ala., down the Warrior river. Mr. Wells has been engaged in river transportation for many years and is able to speak from a practical knowledge. In a second letter on this subject to President Jemison, of the Tuskaloosa Coal, Iron & Land Co., he says:

"I desire also in this connection to record my hearty approval of Col. Harding's plan of improvement of the Ripples, to secure perennial navigation in the Black Warrior below Tuskaloosa—a system of weirs or portable appliances for use only in low stages of water—for where navigable water is the rule and low water the exception in a stream, locks and dams are obstructions to navigation. On our Little Kanawha river the converse was true; hence the adoption of permanent locks and dams, as we had no navigation except on freshets. In contemplating the capabilities of navigable rivers like the Black Warrior and Tombigbee, by comparison with any other known method of transportation for heavy commodities, such as coal, timber, iron, etc., both as to capacity and economy, one is lost in the disparity at once manifest in favor of the water line. To illustrate: Some thirty years ago it was proposed to enlarge the locks on the Erie canal, and the public very naturally asked, 'Why is it necessary to spend more money on the canal when we have the great New York Central Railroad paralleling it from Lake Erie to the Hudson river?' An examination of the subject developed the startling fact that it would require eight railroads like the New York Central to equal the carrying capacity of the Erie canal—a mere thread of water, so to speak, hardly noticeable by the traveler as he speeds along its course on the rail, unless his attention was called to it or his eye caught it by accident. The question was answered and the locks were enlarged. The great State of New York and its great commercial centers to this day religiously foster this very important waterway, and and this year have provided three-fourths of a million dollars for its enlargement.

Allow me to give another illustration. There are converging upon the city of Cincinnati railroads almost without limit, many of them specially built, or professedly so, with a view to bringing coal to that city, and most of them passing through coal fields, and yet, when the Ohio river transportation fails by reason of low water or ice, and coal stocks happen to be low—as occurred last fall, and has often occurred before—all their railroads and rolling stock are impotent for relief, and a coal famine rages. Prices reached last fall 27 cents a bushel, or \$6.75 a ton.

I have estimated the cost of a transportation plant for the carrying of 1,000 tons of coal or coke daily from Tuskaloosa to Mobile, as follows:

Four tow boats for Black Warrior river.....	\$40,000
Three tow boats for Tombigbee river.....	45,000
Fifty-two barges, 120x24x5.....	39,000

Total.....\$124,000
or say \$125,000. Each tow boat to be equipped with a double steam capstan and electric light, obvious necessities for such services.

One tow of four barges would leave Tuskaloosa daily and when the whole fleet was moving, and tow of eight barges would leave Demopolis on alternate days, the Warrior boats making two trips to the lower boat's one.

These daily shipments from Tuskaloosa would require the arrival daily of 50 cars of coal of 30 tons each, and should the output of your mines reach 3,000 tons, the arrival of 150 car loads of coal would be required, the river would still suffice, only calling for more tonnage.

Such a departure could be made bearing 1,000 tons of coal each hour in the day—each half hour, if necessary, so nearly limitless is its capacity.

It seems to me also that a fine packet trade for general freight and passengers could be built up on these rivers. Every bushel of cotton seed, every bushel of surplus grain and ton of surplus hay, should come to Tuskaloosa for consumption or distribution to the large manufacturing towns almost at your very doors, and the same is true of every product of the plantation.

To build up and maintain this trade, the home of the tonnage should be in Tuskaloosa. Again the development of the mining, coking and transportation of coal to the capacity of 1,000 tons daily, even would, without doubt, set the trend of the products of the country along this avenue and for many miles around towards your city, and make Tuskaloosa a commercial center of greatly increased importance."

Judge Kelley on the 'Tariff.

Hon. Wm. D. Kelley, in the course of a speech on the tariff before the Manufacturers' Club of Philadelphia, said:

"You cannot destroy the prosperity of one class of American citizens without all feeling the wrong. [Applause.] Solidarity of interest and independence of trade are important dominant considerations. When one class says, 'Let the sugar-grower go,' the sugar-grower has a right to say, 'Let the wool grower go,' and both of them, with their impoverished laborers, will respond, 'Let the woolen and cotton manufacturers, and the makers of iron and steel, who have destroyed us, go further than we want to go, and to a warmer climate.' [Laughter and applause.] If we would fully develop the resources of our country we must make our own sugar, whether it be grown in Florida, Louisiana or Texas from cane, in California from the beet, in Iowa, Wisconsin and Missouri from corn, or over the whole surface of our country from that beneficent plant, scarcely second in its beneficence to the beet, sorghum, for they are all established successes in yielding merchantable sugar. Are you ready to make war on Florida, Louisiana, Texas, Kansas and California? No. Stand by the protective system and demand the abolition of all internal taxes, which burden many of our industries. [Applause.] The repeal of these taxes is the only sure means of abolishing our increasing surplus revenue. Let us do this promptly; but do not let us break down and destroy our great industrial interests. * * * I admit that we need new and enlarged markets. We cannot find them in foreign lands, but have them in our own country and at our very doors. We have more than twelve million countrymen on the other side of the Potomac and the Ohio who occupy territory which is capable of maintaining in greater natural comfort than they now enjoy hundreds of millions of people, and who want everything that we produce. [Applause.]

If we shall maintain the protective system and send men and capital among them to develop their known resources, we shall find a market that will be all our own, which the competing nations of Europe cannot find in India, Africa, Egypt or the islands of the sea. Why does South Carolina demand free trade? She grows rice and cotton. Yet her whole territory is covered with magnificent timber for which there is no outlet into the commerce of our own country or the world; and back of South Carolina, in Georgia, East Tennessee and North Carolina, there is more natural wealth waiting development than ever existed in New England, Pennsylvania and Ohio combined; and the whole region is a wilderness. There are a few men in each of these States who are struggling to develop their coal and iron deposits, and to establish, as has been done at Birmingham, Chattanooga, Anniston, South Pittsburg and other points, all the industries which are sustained by iron and coal deposits; but this great storehouse of mineral wealth is undeveloped. I doubt if any one of you knows what wealth there is lying between Nashville and Charleston."

Knitting Factory.

NEW ORLEANS, LA., May 14, 1888.

Editor Manufacturers' Record:

Our factory will be carried on under the style of Southern Knitting Works, and operated by a partnership consisting of Wm. Schilling and August Elbert. Will work on steam and hand looms, and employ 15 to 25 people. Will manufacture hammocks, school bags, saddle blankets, etc. Will use jute, cotton and woolen yarns. Factory, 180 N. Peters street; office, 60 Baronne street.

SOUTHERN KNITTING WORKS.

To Build Railroad.

GRIFFIN, GA., May 16, 1888.

Editor Manufacturers' Record:

We have formed a company to build from Augusta to the line of the State of Florida passing through Millen and Jessup in an air line to Jacksonville, Fla.

AUGUSTA & FLORIDA RAILROAD CO.,
W. E. H. SEARCY, Pres.

Will Rebuild Saw Mill.

PATTERSONVILLE, LA., May 14, 1888.

Editor Manufacturers' Record:

Saw mill was burned May 7th. Will rebuild at once. Will put in two band mills and all necessary appurtenances to make a first-class mill.

PHARR & WILLIAMS.

Additional Machinery.

TUSKALOOSA, ALA., May 14, 1888.

Editor Manufacturers' Record:

Have ordered 10 cards and 2,000 spindles with intermediate machinery for immediate shipment to add to our 8,000 spindle plant.

TUSKALOOSA MFG. CO.

WINSTON, N. C., May 21, 1888.

Editor Manufacturers' Record:

I have contracted with J. C. Miller to erect a brick factory, 40x90 feet, 4 stories high, to be used for handling leaf tobacco. Will have it completed August 1st.

J. B. MOSELEY.

BLAINE, ARK., May 22, 1888.

Editor Manufacturers' Record:

We are rebuilding our saw mill. Will be ready to run in 2 or 3 weeks.

W. P. COX & BRO.

A DISPATCH from Sheffield, Ala., says: "With the past few weeks of favorable weather, there has come to Sheffield a surprising increase of activity in all departments of business, and a rapid advance in the various enterprises in course of construction. Withal the prospects are exceedingly flattering for Sheffield."

THE Progressive Age, which is so well known as an industrial journal devoted to gas interests, has removed its office to New York, and will now be issued semi-monthly instead of monthly as heretofore. This is doubtless a wise step, and we trust that it may prove a very profitable one.

HOW TO GET RICH IN THE SOUTH, Telling What To Do, How To Do It, and What Can Be Made.

This is a very complete work on the South, giving much about the wonderful opportunities for wealth that await the man who makes use of them. It tells about stock raising, grasses, hay making, fruit culture, truck farming, etc. Every item is treated in a separate chapter, giving full details of proper management. It is a book that will prove valuable to those who contemplate settling in the South. Large 12mo, beautifully bound in cloth; price \$1. W. H. HARRISON, JR., Publishing Co., 415-417 Dearborn street, Chicago.

Items from Fort Smith

FORT SMITH, ARK., May 14, 1888.

Editor Manufacturers' Record:

L. L. Bush, of Philadelphia, was here during the past week in the matter of securing right of way into this city for the Fort Smith, Paris & Dardanelle Railroad. The right of way along the line from Dardanelle to this city has already been secured, and Mr. Bush promises completion of the road this year if right of way and terminal facilities within this city are granted.

A company has been organized here, of which J. L. Tilley is president, to prospect the oil fields in Scott and other Southwestern counties.

Contract was let by the Anheuser Bush Co., of St. Louis, to M. M. Brennan for the erection of their \$40,000 office building here.

W. A. Doyle, the contractor for the 20 miles of sewerage to be put in here, has arrived, and work will be commenced within two weeks. R. H. ADAIR.

WIMINGTON, N. C., May 21, 1888.

Editor Manufacturers' Record:

My intention is to rebuild my brick works just burned. ROGER MORRIS.

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2. They will lease the mines upon royalty or will deliver at furnace both red and brown ores, superior in quality to any at present mined in the South, and which will yield not less than 50 per cent. in the furnace, at say \$1.25 to \$1.50 per ton, or anyway 10 per cent. less than ore proportionately rich cost Chattanooga furnaces. They will contract to deliver any number of tons daily. Lowest freight rates will be obtained on manufactured products to markets.

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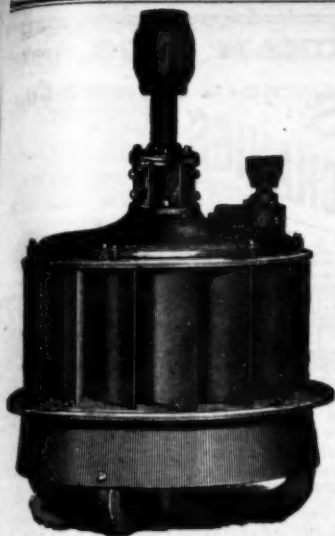
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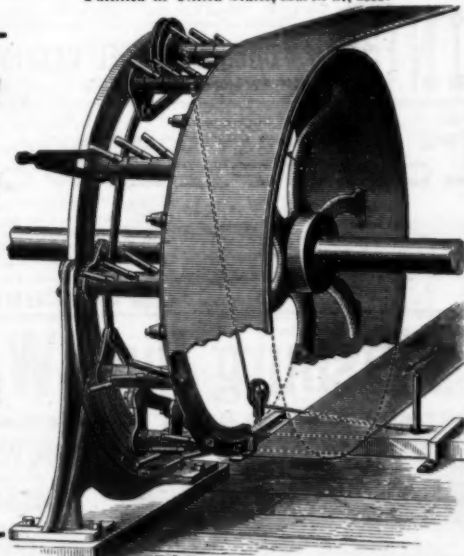
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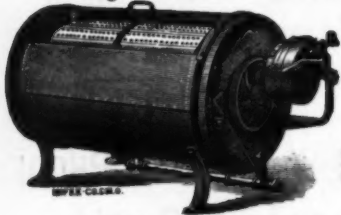
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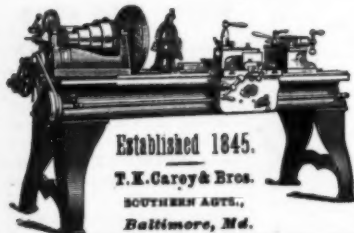
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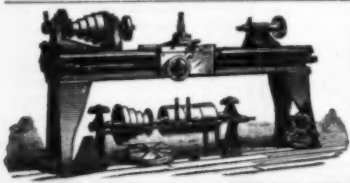
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Pipe Cutting and
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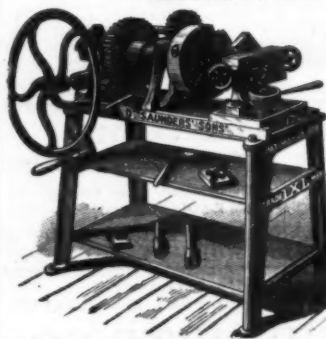
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STEAM AND GAS FITTERS'
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For Pipe Mill Use a Specialty.
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"Sparger's White Heat Steel Compound." FOR WELDING OR WORKING STEEL.

It is superior to borax or anything else, and much cheaper. Its chief ingredient is a natural deposit found near Bristol, Tenn. It will restore steel when burned, or, if used properly, prevent any injury from over-heating. It is successfully used by some of the largest steel manufacturers in the country in reducing heavy ingots, &c. Price, 5 cents per pound by the barrel of 500 to 800 pounds, or 6 cents per pound by the bag of 100 pounds.

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Capital Stock \$100,000.

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**STEEL
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From 1-4 to 15,000 lbs. Weight.

True to pattern, sound, solid, free from blow-holes, and of unequalled strength. Stronger and more durable than iron forgings in any position or for any service whatever. 40,000 CRANK SHAFTS and 30,000 GEAR WHEELS of this steel now running prove this. CRANK SHAFTS and GEARING specialties. STEEL CASTINGS of every description. Send for circulars and prices to

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Manufacture all kinds of Blast
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**MACHINE AND CAR BOLTS,
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COLD PUNCHED, CHAMFERED, TRIMMED &
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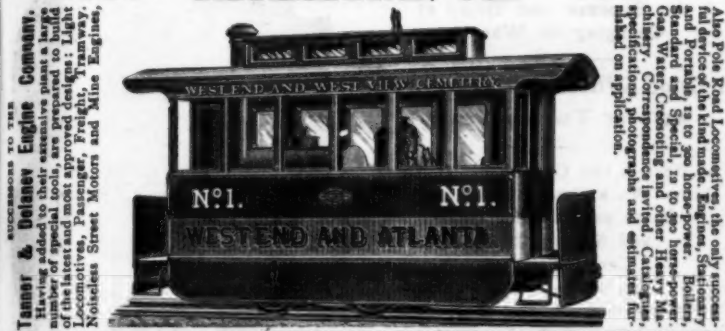
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The Richmond Locomotive & Machine Works,

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STEEL RAILS

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Standard Sections
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Street Rails

Fish Plates,
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STEPHEN W. BALDWIN
SALES AGENT

16 lbs. Full Size.

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50 to 80 lbs. per yard
16 " 45 " " "
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Bolts & Nuts,
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IMPROVED BALLAST UNLOADERS \$175.00

Steam Shovels,
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Railroad Car Trimmings & General Brass Ship Work.

On Bearings and Ingot Metal, Switch and Car Locks, Fine Brass Castings, Brass Special Screws and Bolts,
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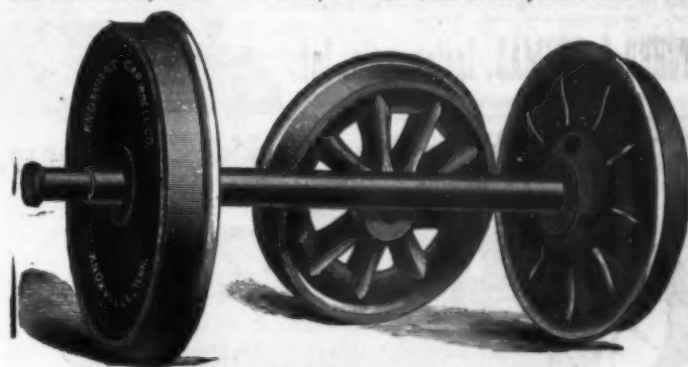
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Manufacturers of All Kinds of

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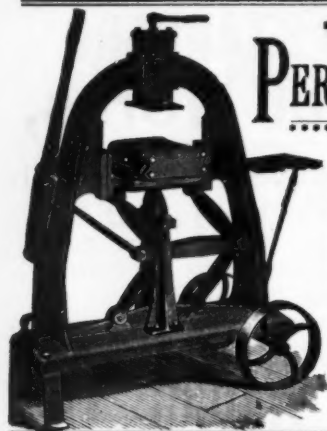
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Standard Sewer Pipe
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Double Strength, with Improved Sockets.

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PERFECTION BRICK PRESS

An easy-working, quick-operating and powerful press. Will successfully press brick made on any Brick or Tile Machine.

The Wrought-Iron Tempering Wheel,
The most thorough mud temper known. Tempers faster, mixes better and runs lighter than any wheel made.

Barrows, Trucks, Molds, Kiln Doors, &c.

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Capacity 40,000 Perfect Brick Per Day
Great Saving in Labor and Expense

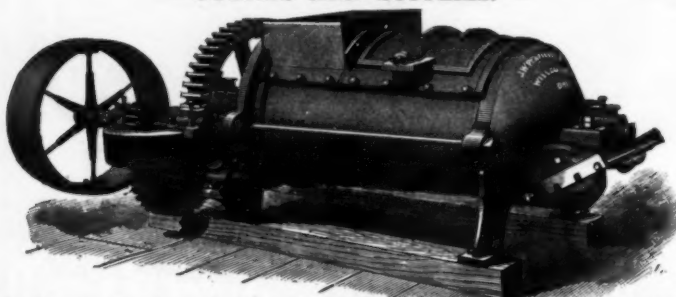
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40,000 BRICK PER DAY
TILE
With Automatic CUT OFF.
Engines and full Factory OUTFITS
from 1 to 20 inches 13 styles CLAY CRUSHERS
Machines with or without Crushers. 6 different Brickmachines.
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FOR FORGES, PIPE FOUNDRIES, ROLLING, RAILWAY WORKS, MINES
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Licensed by and Succeeding to the Commercial Business of the
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The DYNAMO of this Company is AUTOMATIC in its regulation, and will maintain a UNIFORM LIGHT, with ALL or ANY PORTION of the lights in Circuit. Our LAMP will not BLACKEN and will MAINTAIN its CANDLE POWER during its Guaranteed life.
Plans and Estimates furnished for all kinds of Incandescent Lighting
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Are the Best Water Wheels ever made.

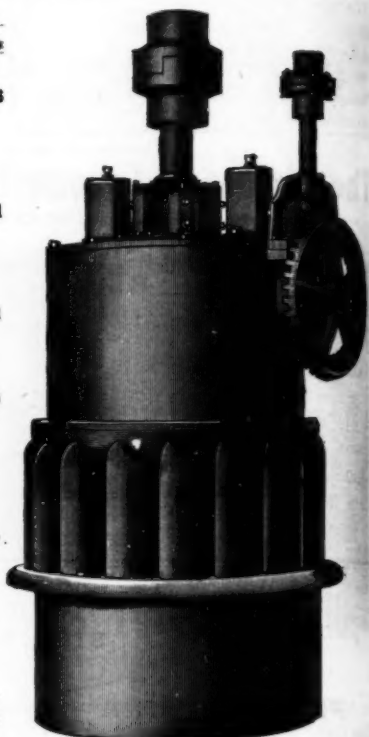
A Good Water Wheel Increases
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Get the Best at First, and Avoid
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Changing the Wheels.

A Good Wheel will serve you
well for Twenty Years.

The Best is the Cheapest. It Does
More Work, Lasts Longer, and
Costs no more for Gears
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Common Wheel.

The Hercules Gives the Most Power
for its Size and the Highest
Average Percentage from
Full to One-half Gate
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THE HERCULES WHEELS IN THE SOUTH.

When ordered.	Name and Address.	Size of Wheel, Inches.	When ordered.	Name and Address.	Size of Wheel, Inches.
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	J. B. Connelly, Augusta, Ga.	1-30	1884.	Porter Mfg. Co., Clarksville, Ga.	1-30
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	Langley Mfg. Co., Langley, S. C.	1-15		Geo. W. Brackenridge, San Antonio, Texas	1-19
	Clifton Mfg. Co., Clifton, S. C.	1-34		Young & Hack, Augusta, Ga.	1-45
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	Eagle & Phoenix Mfg. Co., Columbus, Ga.	1-36		James Riddle & Son, Wilmington, Del.	1-30
	Arctic Ice Co., Augusta, Ga.	1-30	1886.	Roswell Mfg. Co., Roswell, Ga.	1-36
	" " " " " "	1-33		Thomas M. Holt, Haw River, N. C.	1-36
	" " " " " "	1-15		Reedy River Mfg. Co., Reedy River Factory, S. C.	1-36
	Clifton Mfg. Co., Clifton, S. C.	1-34		Jessup & Moore Paper Co., Wilm'n, Del.	1-45
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	Eagle & Phoenix Mfg. Co., Columbus, Ga.	1-30		Marietta Paper Mfg. Co., Marietta, Ga.	1-30
	Princeton Mfg. Co., Athens, Ga.	1-30		" " " " " "	1-30
1882.	D. E. Converse & Co., Glendale, S. C.	1-18		Augusta Factory, Augusta, Ga.	1-36
	H. A. Merry, Berzella, Ga.	1-27		Lockwood & Kampman, San Ant'o, Tex.	1-36
	E. Lockhart, Eubanks, Ga.	1-27		" " " " " "	1-36
	South Carolina R. R. Co., Charleston, S. C.	1-18	1883.	Durham Water Works, Durham, N. C.	1-36
	Roswell Mfg. Co., Roswell, Ga.	1-30		Richmond Paper Mfg. Co., Richmond, Va.	1-36
	Richmond & Alleghany R. R. Co., Richmond, Va.	1-9		" " " " " "	1-36
	Riverside Cotton Mills, Danville, Va.	1-42		Augusta Electric Light Co., Augusta, Ga.	1-36
	Leak, Wall & McRae, Rockingham, N. C.	1-42		Petersburg Electric Light Co., Petersburg, Va.	1-30
1883.	Marietta Paper Mfg. Co., Marietta, Ga.	1-12		J. N. Williamson, Gibsonville, N. C.	1-30
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	Pacolet Mfg. Co., Pacolet, S. C.	1-54			
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	J. C. Watson & Bro., Ridge Springs, S. C.	1-21			

If you want to buy a new water wheel, if your old wheel does not give absolute satisfaction, if you would like to know just how perfect a water wheel can be made, or if you are in any way interested in water wheels, it will pay you to write for CATALOGUE NO. 3 to the

HOLYOKE MACHINE CO.
WORCESTER, MASS.

"ANNISTON"

A Romance of the New South."

Hon. Wm. D. Kelley,

THE GREAT PENNSYLVANIA STATESMAN,

After many weeks of careful investigation of the resources and advantages of the iron section of Alabama, lately wrote an exceedingly interesting article entitled "Anniston: A Romance of the New South." In this article he gave an enthusiastic description of the growth of Anniston, widely known as "The Model City of the South," and of its wonderful development and marvellous mineral wealth. Judge Kelley declares that Anniston is an

"IDEAL INDUSTRIAL CENTER,"

And says that "It is in many respects the most remarkable center of the Iron Industry in the Southern States."



ANNISTON INN.

Anniston is beautifully located in the Alabama Mountains. It is surrounded by the Most Marvellous Mineral Resources of the South, by Vast Forests of Virgin Timber and by a Magnificent Farming Country. There are twelve Furnaces in the "Anniston Iron District," (two of them making the celebrated "Woodstock Iron," being within the city limits, and two more, to make Coke Iron, being under construction.) Anniston now has Three Banks, the Best Schools in the State, Fine Churches, Opera House, one



GRACE EPISCOPAL CHURCH.

of the Largest Cotton Mills in Alabama, Immense Car Wheel and Car Axle Works, Car Works, Rolling Mill, Machine Shops and Foundries, a large Steel Bloomery, the only one in the South, a 90-inch Morse Cotton Compress, immense Fire Brick Works, costing \$100,000, Planing Mills, &c., and is now building two Coke Furnaces, to turn out 3,100 tons of iron a week; Iron Pipe Works, the largest in the world, to employ 900 hands and consume 200 tons of pig iron a day; a \$60,000 Agricultural Implement Factory; Electric Street Railroad; a \$30,000 Union Depot, &c.

Manufacturers, Merchants and others desiring to locate in the best city in the South, where a solid and substantial growth is assured, are invited to visit Anniston or to write for pamphlets, &c., to the

THE UNITED STATES ROLLING STOCK COMPANY, OF NEW YORK, having a capital of \$4,000,000, are now building at Anniston

GIGANTIC CAR WORKS,

Including Rolling-Mill, Foundry, Machine Shops, &c., to cost \$1,000,000, to employ 1,000 Skilled Mechanics, and to turn out 20 complete Cars a day, including freight, passenger, sleeping and parlor cars, everything, from making the wheels to the upholstering, to be done in these works. This is the most important industrial enterprise ever established in the South by Northern capital.

THE ENTERPRISES

Now under construction, and for the building and running of which every dollar has been raised, will require over 4,000 workmen in addition to those now here. The population, now 10,000, will be about 25,000 by the end of 1888. Great inducements offered to manufacturers to locate here.



ANNISTON INN—GRAND STAIRCASE.

OVER 100,000 ACRES

Of the Finest Iron Ore, Timber and Coal Lands in Alabama, including the great Cahaba Coal and Iron Property of 40,000 acres of the best Coking Coals in the South, are owned by Anniston capitalists, and are being developed in the interest of this town. These Lands, the New Furnaces, Pipe Works, Railroads to develop these properties, &c., HAVE ALL BEEN PAID FOR IN CASH. THERE BEING NO DEBTS OR BONDS TO ENCUMBER THESE GREAT ENTERPRISES. There are

SPLENDID OPENINGS HERE

for many industries, large and small, such as Cotton and Woolen Mills, Foundries and Machine Shops, Chain Works, Agricultural Implement Factories, Nail Mills, Wood-Working Establishments of all kinds, Brick and Tile Works, Flour and Corn Mill, &c., &c. Wholesale Dry Goods, Grocery and Hardware Houses are needed, and a large trade could be secured at once.

Contractors and Builders will find splendid opportunities for profitable investments in building dwellings, stores, &c. At least 2,000 new houses will be needed this year to accommodate the people to be brought here to operate the new enterprises under way, and others.

ANNISTON'S CLIMATE

Is Unsurpassed for Weak Lungs and Throats. It is dry and bracing, delightfully sunny and warm in winter, and cool, with never-falling breezes in summer. Its location in the mountains makes its summer climate a great attraction, and Northern people will find it cooler and more pleasant here than in their own homes. Here are found Pure Air, Good Water, a Salubrious Climate, Absolute Freedom from Malaria, Well-Paved Streets and the Finest Hotel in the State, costing \$300,000.

Anniston City Land Co.,

Anniston, Alabama.

ATHENS, East Tennessee,

THE COMING

→ Iron and Manufacturing City of the South. ←

Athens is the county seat of one of the most fertile counties in East Tennessee. The health of the city is unsurpassed, and is **ABSOLUTELY FREE FROM ALL MALARIAL OR EPIDEMIC DISEASES**. The surrounding scenery is very fine. From the main avenue the whole valley of East Tennessee can be seen, from the Cumberland Mountains on the west to the Great Smoky Mountains on the east; some of the tallest peaks east of the Rockies being in full view. **FINE MINERAL SPRINGS** are adjacent and are popular summer resorts. The society of Athens is excellent. A cordial welcome is extended to all law-abiding people locating in the town. The **EDUCATIONAL FACILITIES** are good. Beside public and preparatory schools, Athens is the seat of **THE GRANT MEMORIAL UNIVERSITY**, which has an enrollment of over 300, and whose graduates include some of the most distinguished citizens in the country. Among the industries and institutions of the place in active operation are:

THE ATHENS BUILDING & LOAN ASSOCIATION, \$250,000. **THE ATHENS WOOLEN MILLS, \$100,000.**

THE FIRST NATIONAL BANK, \$50,000.—To be increased at once.

FOUNDRY & MACHINE SHOPS, \$25,000.

FURNITURE WORKS, \$15,000.

FLOURING MILLS, \$20,000, etc.

500 men are now at work on the new railroad from Athens to the

RICHEST IRON FIELDS IN THE SOUTH

JUST EAST OF THE TOWN.

Only eight miles from Athens are **VEINS OF RED FOSSILIFEROUS ORE 11½ FEET THICK**, and 4 to 12 miles beyond are **THE LARGEST DEPOSITS OF BROWN ORES IN THE SOUTH**. The ores of both varieties, in addition to being inexhaustible, are both superior in quality to any ores of either variety at present mined in the South. An assertion that can be sustained. Coke can now be obtained at the lowest prices, and in addition a new railroad is now projected to the Cumberland Coal Fields, only 22 miles distant. These roads will give Athens **UNSURPASSED SHIPPING FACILITIES**. The road under construction will penetrate large deposits of Tennessee Variegated Marble; also an Unopened Timbered Region, and will develop the

Largest Colored Slate Deposits in the United States.

These quarries are now being opened, and are pronounced by experts Absolutely Inexhaustible, and equal in quality to the finest Vermont Colored Slate.

The ATHENS MINING & MANUFACTURING CO.

Have alone just contracted for the erection of over

\$500,000 IN NEW MANUFACTURING ENTERPRISES

At Athens, including a 100-ton Blast Furnace, cost \$200,000; Cotton Mills, cost \$150,000; Furniture Works, employing 200 men, cost \$100,000; Hotel, cost \$60,000; Water Works, Street Car Lines, &c. These improvements have been commenced which, added to other improvements projected, will add

\$1,000,000 OF NEW MANUFACTURING ENTERPRISES TO ATHENS.

The company desire to open correspondence with parties desiring to locate, and will extend liberal inducements in addition to gifts of sites in order to induce New Manufacturing Enterprises to locate in Athens. City property is doubling in value every few months, and at present low prices is beyond question a very fine investment.

The Athens Mining & Manufacturing Company,

R. L. BRIGHT, President

R. J. FISHER, Secy. and Genl. Manager.

Tuskaloosa, Ala.

* ALABAMA'S NATURAL PITTSBURGH. *

A Railroad and River Town of 6,000 Inhabitants, in the Coal, Iron & Timber District.

DIPLOMAS FOR

The Best Furnace Coke and the Best Blacksmith Coal

WERE AWARDED THIS CITY OVER ALL AND MANY COMPETITORS AT THE GREAT PIEDMONT EXPOSITION.

HEALTHFUL LOCATION. SALUBRIOUS CLIMATE. SCHOOL FACILITIES UNEQUALED BY ANY OTHER TOWN IN THE SOUTH.

"EXAMINE THE MAP."

+ SITUATED ON +
Queen & Crescent

— TRUNK LINE, —

IN THE
Warrior Coal Field

AND ON THE
WARRIOR RIVER.

Only Navigable River touching the
Alabama Mineral Field.

Eight Months Navigation. Being Surveyed
now to be opened all the year round.
All Water Navigation to

❖ **MOBILE** ❖

AND THE
Entire Gulf and Atlantic Coasts.

— THE —
Tuskaloosa Northern Railroad

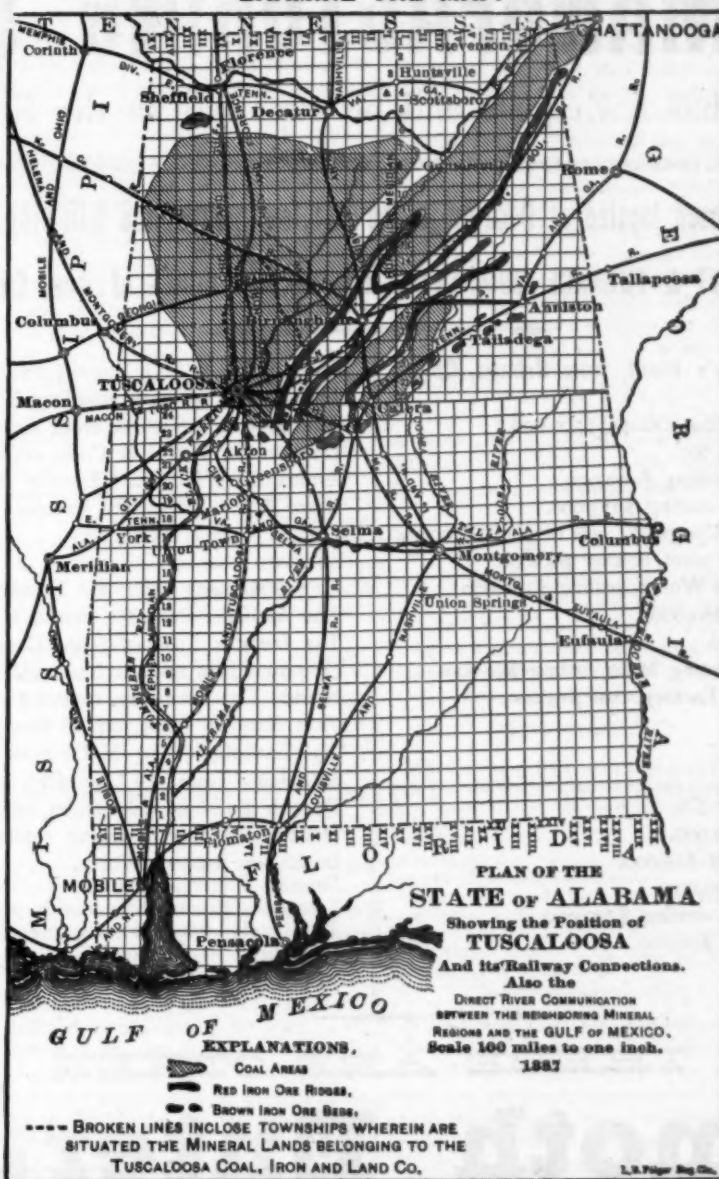
Is now under construction into the
MINERAL & TIMBER FIELDS.

— THE —
Macon & Tuskaloosa Railroad

Will soon be building into the
COTTON REGION OF MISSISSIPPI.

Fine Farming Region

Around and Below the City.



Superior Inducements

AND

+ ADVANTAGES +

TO ALL

Manufactories Consuming
WOOD,
IRON,
COTTON.

FINE COKING COAL

In workable veins near city, fully tested.

◀ **The Fire Clay** ▶

Existing in inexhaustible quantities, has been
practically tested and pronounced

The Best yet Discovered in the South.

The Tuskaloosa Belt Railway

NOW IN OPERATION.

+ **THE TUSKALOOSA WATER WORKS** +

NOW BUILDING.

COTTON MILL

In Successful Operation.

ALSO

LARGE BRICK WORKS

COTTON-SEED OIL MILL, &c.

Manufacturers Seeking Locations in the South have here

● **THE GOLDEN OPPORTUNITY.** ●

Many have availed themselves of it, but such is the wonderful richness of the resources of this section that there is

• **ROOM FOR ALL** •

Tuskaloosa Coal, Iron & Land Co.,

Owning 4,600 acres of city and suburban property, and 40,000 acres of mineral and timber lands, offers liberal inducements to manufacturers
to locate at Tuskaloosa, Nature's City, and invites correspondence and the fullest investigation of its claims.

An illustrated descriptive pamphlet sent free upon application to

W. C. JEMISON, President Tuskaloosa Coal, Iron & Land Co., **TUSKALOOSA, ALA.**

DECATUR, ALA.

Offers outside investors better inducements to locate than any other

 CITY IN THE SOUTH. 

AS A CITY OF

Mammoth MANUFACTURING Enterprises,

She has few equals and no superiors in the South.

There have been located at Decatur in the last few months the following Industries :

THE DECATUR LAND, IMPROVEMENT & FURNACE COMPANY. Has 50,000 ACRES of Iron, Coal, Mineral and Timber LANDS.

United States Rolling Stock Company's Plant, from Urbana, Ohio,
\$1,000,000.

Louisville & Nashville Railway Construction Shops, \$300,000.

Charcoal Company's plant, costing \$120,000.

A seventy-ton Charcoal Iron Furnace, costing \$190,000.

A one hundred-ton Blast Iron Furnace, costing \$225,000.

The Decatur Iron Bridge Construction Company; cost of plant, \$100,000.

The American Oak Extract Company's plant, costing \$60,000.

Ivens & Sons Steam Boiler and Engine Works, costing \$100,000.

Morse Cotton Compress plant, costing \$60,000.

Southern Horse Nail Company, \$100,000.

Decatur Lumber Company, Saw and Planing Mills, costing \$50,000.

Berthard & Co., Sash, Door and Blind Factory, cost \$15,000.

The Decatur Street Railway Company.

The Plumbers' Supply Co., \$25,000.

The Telephone Company.

The Alabama Lumber & Fruit Package Co.

Brush Electric Light Company, cost \$10,000.

The Ironton Wheelbarrow Company, cost \$25,000.

The St. Louis Investment Company, \$200,000.

Howland & Co's Water Works System, costing \$200,000.

Bleymeyer Artificial Ice Company, cost \$10,000.

Four Mammoth Brickyards.

Jones, Poley & Co's Lumber Yards.

The Hoosier Mills & Building Company.

The Gate City Sash & Door Company.

Decatur Car Wheel & Construction Company, \$60,000.

Arantz Bro's Mills and Lumber Yards.

Grant & Co's Furniture Factory.

Decatur Carriage Company.

Southern Lumber Company.

H. S. Freeman's Mills and Lumber Yards.

The Alabama Farmer's Friend Fence Machine Company.

The Decatur Artificial Stone Company.

Decatur Chain and Architectural Iron Works, capital \$100,000.

Natural Gas Company, capital \$200,000.

First National Bank, capital \$100,000.

The Exchange Bank of Decatur, capital \$100,000.

Merchants' Insurance Company, capital \$100,000

Decatur Building Association, capital \$300,000.

Decatur Building Company, capital \$1,000,000.

Buchheit's Bottling Works.

Decatur Printing Company.

Two daily papers, three weekly papers.

Two hotels—one \$100,000, completed, and one \$300,000 being built; the largest in the South.

Grand Opera House, \$100,000.

THERE ARE OTHER

Mammoth Enterprises

Locating here, and contracts are being made with some of the most extensive industries in the United States.

Decatur is the Healthiest city in Alabama, the death rate among whites for 1886 being only 11 in 1,000.

Decatur Land, Improvement & Furnace Company.

E. C. GORDON, President.

H. G. BOND, Vice-Prest. and Gen. Manager.

W. T. MULLIGAN, Secretary.

This Company has been pre-eminently successful in promoting the interests of the city of Decatur.

CORRESPONDENCE SOLICITED WITH PARTIES SEEKING LOCATIONS.

TRADE NOTES.

THE Terry Manufacturing Co., of Horseheads, N. Y., have recently added another large building and foundry to their plant to accommodate their growing business. Hardware dealers should have samples and prices of their new hangers.

FROM recent advices received we observe that the Lord Commissioners of the Admiralty of England, after a trial at Portsmouth, report that the Okonite insulated wires in use by them have proven eminently satisfactory. The acknowledgement is signed by the Hon. Evan Macgregor.

THE Famous Manufacturing Co., Quincy, Ill., proprietors of the Gem City Hay Press & Implement Works, are actively engaged manufacturing and delivering their celebrated Champion baling press. These presses will bale hay, straw and cotton, and for durability and speed cannot be excelled. A circular containing many convincing testimonials will be furnished upon application.

THE Rice & Whitacre Manufacturing Co., Chicago, Ill., have just issued illustrated catalogues, in which they describe accurately their Triumph steam heaters and hot water boilers, and Kriebel stationary and marine engines. They present in these catalogues many testimonials of the efficiency, utility and economy of these machines and much data as to their power and price. Those interested should send for a copy.

THE attention of millers, miners, farmers and manufacturers generally, is called to the handsomely illustrated and comprehensively edited catalogue of the Jeffreys Manufacturing Co., of Columbus, Ohio. This catalogue contains a description of various patterns of roller chain belting, with size, working strain and price per foot; keg and barrel elevators, bale and package elevators, clay conveyers, sprocket wheels, log jacks, &c., &c. Those in want would do well to send for a copy.

CHAS. A. SCHIEREN & Co., New York, report recent sales of their leather link belting to the following: Maginnis Oil & Soap Works, New Orleans, La.; Joseph Dixon Crucible Co., Jersey City, N. J.; H. J. Klingler & Co., Butler, Pa.; Hughes Lumber Co., Chattanooga, Tenn.; Richmond Manufacturing Co., Lockport, N. Y.; North Carolina Phosphate Co., Raleigh, N. C.; Littleton Lumber Co., South Littleton, N. H.; New Haven Rolling Mill Co., New Haven, Conn.; Sheffield Electric Light Works, Sheffield, Ala.

We are in receipt of a copy of a new 16-page sectional catalogue of B. F. Sturtevant's steel pressure blowers, which illustrates these well-known machines with all their latest improvements. Mr. Sturtevant's catalogues have always been celebrated for the valuable tables relating to the properties of air in motion, and in this are to be found a number, which render this catalogue of great utility to foundrymen, blacksmiths and iron workers of all classes. A copy will be mailed upon application to B. F. Sturtevant, Boston. Ask for catalogue No. 33.

In another column of this issue will be found the card of the Cincinnati Corrugating Co. relative to steel arches. This is a new feature and one which will be much appreciated by the trade in general. The steel arch is far superior to anything in the market for similar purposes. The Cincinnati Corrugating Co. claim to have the best facilities of any manufacturers in the United States for turning out this kind of work accurately and promptly, and those in need of any such material will find it to their interest to correspond with this company. They are prompt and reliable, and will cheerfully furnish any information desired.

ELMER E. CLINE, 50 and 52 Ely street, Alliance, Ohio, has issued a neat little catalogue, fully illustrated, and giving description and prices of his full line of upright and horizontal portable and stationary, yacht launch and catamaran engines and boilers. These engines are suitable for ginning machines, laundries, spice mills, carriage and blacksmith shops, small wood and iron-working establishments, sawing, pumping, threshing and a hundred other usages. They are simple, strong and cheap; do not get out of order, and are durable. The catalogue and price-list will be sent to any address upon application.

THE Page Belting Co., of Concord, N. H., report business as very active during the past month, with general trade in their belting, both tanned and "Hercules raw hide," and in the "Hercules" and tanned lacing very satisfactory. Among the special orders which they have received are the following: Belting for the large new brewery being erected by Frank Jones, of Portsmouth, N. H.; main driving belts and dynamo belts for the electric light plant for the Fitchburg Railroad, North Adams, Mass.; a large shipment of "Hercules raw hide" belting has been made to Tokio, Japan; also a large shipment of "Hercules" lacing sent to Hamburg, Germany.

THE Cortland Wagon Co., in an artistically illustrated circular of their celebrated road carts, guarantee the following test: Place two by four scantlings eight or ten feet apart on a road, and then drive over them as fast as your horse can trot or run. We will guarantee that the rider shall not be moved from the seat by such a severe test. Try any other cart and watch the result. We guarantee the springs for five years. Should they break, we replace them free of charge. We manufacture this cart with single and double seat. We also furnish, for doctors' use, a cart with box under the seat, adapted particularly for their profession. Write for prices to the Cortland Wagon Co., Cortland, N. Y.

We learn that the Stratton separator, which was so successfully introduced for the purpose of insuring dry steam from foaming boilers, or on long steam pipes or wherever the steam user is troubled with the water of entrainment or condensation from whatever cause, is meeting with a constantly increasing demand from water works, steamships, steam yachts, railroads, sugar refineries, electric light companies, paper mills, gas works, dry wood extract companies and wherever water in the steam is considered detrimental to either the engine, machinery or whatever the product that saturated wet steam is likely to injure. If this apparatus is used a steam drum or super heater on a boiler is unnecessary, for the speed of the current of steam in its passage to the point of use is made to produce a centrifugal force which is utilized to spin the water out of the steam. Within the last year we learn that this company has attached their apparatus to upwards of 25,000 horse-power of engines, and its application makes high speed engines as safe to run as any others.

MESSRS. J. S. GRAHAM & Co., of Rochester, N. Y., manufacturers of wood-working machinery, have recently designed and brought out their new No. 1 Standard planer and matcher to plane and match four sides, 8, 14 and 26 inches wide and 8 inches thick, which is fitted with all the labor saving appliances known to modern practice, and it is intended to be the most complete machine of its kind ever constructed. They have just sent one, to dress four sides 26x8 inches, frame 17 feet long, weight 14,000 pounds, to E. H. & H. Rollins, Bangor, Me., and recently shipped one, to dress four sides 14x8 inches, weight 11,000 pounds, to the Empire Lumber Co., of Chattanooga, Tenn., and Empire, Ga. This is the last of a large number of machines which they have fur-

nished for the Empire Lumber Co. for their large new mill. They are also having a large run on their No. 2 Standard fast feed flooring machines, which are fitted out with all the improvements of the No. 1 machines, including the broken roll and pressure bar for feeding two boards at the same time. These machines are also made in three widths, viz: 8, 14 and 26 inches wide and 6 inches thick. Illustrations of these machines will appear at an early date.

THE business of the Ingersoll Rock Drill Co., of New York, has been brisk and increasing since the beginning of spring. They have recently made several foreign shipments of air compressors, drills, etc., comprising a plant to China, one to Liverpool, two to Mexico and one to South America; and have now under way a complete plant for the Pacific coast of Mexico to be transported on mule-back, compressors, receiver and all the heavy machinery being cut up into sections. For railroad work they have recently taken orders from the Norfolk & Western, New York Central and Philadelphia and Reading, and they have shipped an air compressor plant to contractors on the Cumberland Gap tunnel in Southern Tennessee. In mining they have orders for air compressors, drills, etc., from Cooper, Hewitt & Co., the King Iron Ore Co., the Bessemer Iron Co., New Jersey, and the New Jersey Iron Mining Co., and have just sold six "Sergeant" drills (making 12 in all recently sold) to the Minnesota Iron Mines, in Minnesota. They have recently shipped stone channeling machines to the Warsaw Bluestone Co., Warsaw, N. Y., Brainerd Quarry Co., Conn., and to Robinson & Cary, St. Paul, Minn. Orders are on hand for channelers, gadders, portable boilers, etc., for the Orville and the Esperanza Marble Companies, of West Rutland, Vt.

If you want to stop at a convenient, comfortable, moderate priced house when in New York go to the Grand Union Hotel, opposite Grand Central Depot. It is on the European plan, and you can regulate your expenses to suit yourself.

Important.

When visiting New York city, save baggage express and carriage hire, and stop at the Grand Union Hotel, opposite Grand Central Depot. 600 handsomely furnished rooms at \$1 and upwards per day. European plan. Elevators and all modern conveniences. Restaurants supplied with the best. Horse cars, stages and elevated railroads to all depots. You can live better for less money at the Grand Union Hotel than any other first-class hotel in the city.

A GOOD turn is done our readers when we commend the American House, Boston. The judicious management which has rendered it so popular in the past is still continued, and no effort is spared to add to the comfort and convenience of guests.

THE Palace Hotel, Cincinnati, Ohio, is said to enjoy the reputation of being the best \$2 hotel in America. 250 rooms; 140 front rooms. All conveniences and excellent cuisine.

WESTPHAL'S IMPROVED REVOLVING SCREW BOLT AND SHOT CASES. ADJUSTABLE FIRE BACKS AND LININGS FOR COOK STOVES. IRON STORM THRESHOLDS. SEND FOR ILLUSTRATED CIRCULARS. SCHENCK'S ADJUSTABLE FIRE BACK CO. 94 MARKET STREET CHICAGO

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FAST FEEDING

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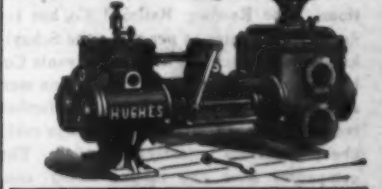
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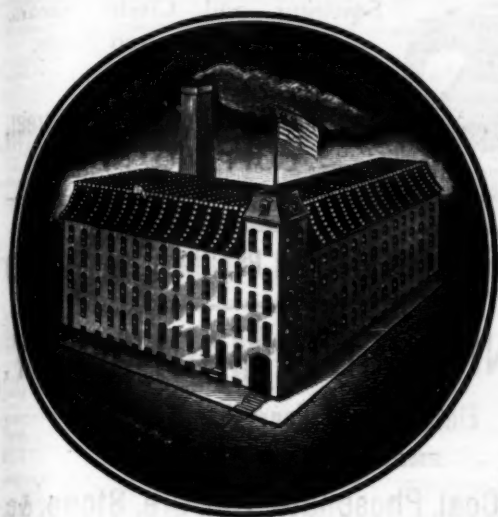
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CHEAPEST, BEST AND MOST DURABLE.

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Portable Forges,**

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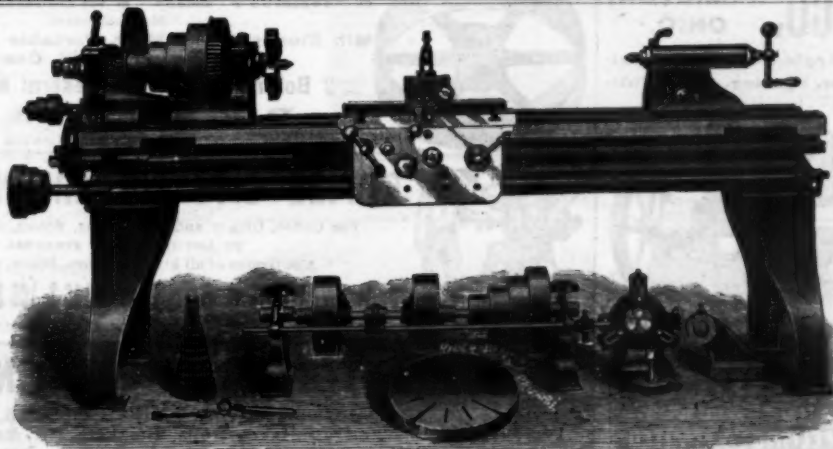
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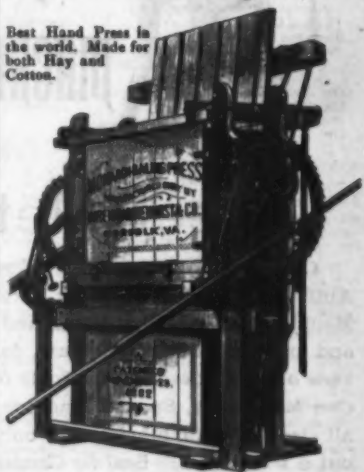
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Beyond all question one of the best wheels on the market, and is fully guaranteed.



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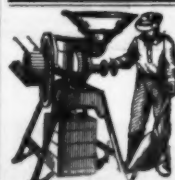
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HORSE SHOES.

Phoenix Light, Medium and Heavy	\$4.10	per kg
Horse Shoes	\$4.10	per kg
Phoenix Mule Shoes	\$5.10	per kg
Phoenix Forged Horse Shoes		
Pro Pressure	\$5.00	per kg
Calico	\$5.25	per kg
Special	\$6.00	per kg
Phoenix Calked Mule Shoes	\$6.00	per kg
Phoenix Horse Shoes	\$4.10	per kg
Mule	\$5.10	per kg
On Shoe—Mt. Carmel Ox Shoes	\$5.10	per kg

ICE CREAM FREEZERS.

Patent—3 quart, \$4.50; 4 quart, \$5.50; 6 quart, \$7.00; 8 quart, \$8.50; 10 quart, \$10.00; 12 quart, \$11.50; 14 quart, \$13.00; 16 quart, \$14.50; 18 quart, \$16.00; 20 quart, \$17.50; 22 quart, \$19.00; 24 quart, \$20.50; 26 quart, \$22.00; 28 quart, \$23.50; 30 quart, \$25.00; 32 quart, \$26.50; 34 quart, \$28.00; 36 quart, \$29.50; 38 quart, \$31.00; 40 quart, \$32.50; 42 quart, \$34.00; 44 quart, \$35.50; 46 quart, \$37.00; 48 quart, \$38.50; 50 quart, \$40.00; 52 quart, \$41.50; 54 quart, \$43.00; 56 quart, \$44.50; 58 quart, \$46.00; 60 quart, \$47.50; 62 quart, \$49.00; 64 quart, \$50.50; 66 quart, \$52.00; 68 quart, \$53.50; 70 quart, \$55.00; 72 quart, \$56.50; 74 quart, \$58.00; 76 quart, \$59.50; 78 quart, \$61.00; 80 quart, \$62.50; 82 quart, \$64.00; 84 quart, \$65.50; 86 quart, \$67.00; 88 quart, \$68.50; 90 quart, \$70.00; 92 quart, \$71.50; 94 quart, \$73.00; 96 quart, \$74.50; 98 quart, \$76.00; 100 quart, \$77.50; 102 quart, \$79.00; 104 quart, \$80.50; 106 quart, \$82.00; 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686 quart, \$517.00; 688 quart, \$518.50; 690 quart, \$520.00; 692 quart, \$521.50; 694 quart, \$523.00; 696 quart, \$524.50; 698 quart, \$526.00; 700 quart, \$527.50; 702 quart, \$529.00; 704 quart, \$530.50; 706 quart, \$532.00; 708 quart, \$533.50; 710 quart, \$535.00; 712 quart, \$536.50; 714 quart, \$538.00; 716 quart, \$539.50; 718 quart, \$541.00; 720 quart, \$542.50; 722 quart, \$544.00; 724 quart, \$545.50; 726 quart, \$547.00; 728 quart, \$548.50; 730 quart, \$550.00; 732 quart, \$551.50; 734 quart, \$553.00; 736 quart, \$554.50; 738 quart, \$556.00; 740 quart, \$557.50; 742 quart, \$559.00; 744 quart, \$560.50; 746 quart, \$562.00; 748 quart, \$563.50; 750 quart, \$565.00; 752 quart, \$566.50; 754 quart, \$568.00; 756 quart, \$569.50; 758 quart, \$571.00; 760 quart, \$572.50; 762 quart, \$574.00; 764 quart, \$575.50; 766 quart, \$577.00; 768 quart, \$578.50; 770 quart, \$580.00; 772 quart, \$581.50; 774 quart, \$583.00; 776 quart, \$584.50; 778 quart, \$586.00; 780 quart, \$587.50; 782 quart, \$589.00; 784 quart, \$590.50; 786 quart, \$592.00; 788 quart, \$593.50; 790 quart, \$595.00; 792 quart, \$596.50; 794 quart, \$598.00; 796 quart, \$599.50; 798 quart, \$601.00; 800 quart, \$602.50; 802 quart, \$604.00; 804 quart, \$605.50; 806 quart, \$607.00; 808 quart, \$608.50; 810 quart, \$610.00; 812 quart, \$611.50; 814 quart, \$613.00; 816 quart, \$614.50; 818 quart, \$616.00; 820 quart, \$617.50; 822 quart, \$619.00; 824 quart, \$620.50; 826 quart, \$622.00; 828 quart, \$623.50; 830 quart, \$625.00; 832 quart, \$626.50; 834 quart, \$628.00; 836 quart, \$629.50; 838 quart, \$631.00; 840 quart, \$632.50; 842 quart, \$634.00; 844 quart, \$635.50; 846 quart, \$637.00; 848 quart, \$638.50; 850 quart, \$640.00; 852 quart, \$641.50; 854 quart, \$643.00; 856 quart, \$644.50; 858 quart, \$646.00; 860 quart, \$647.50; 862 quart, \$649.00; 864 quart, \$650.50; 866 quart, \$652.00; 868 quart, \$653.50; 870 quart, \$655.00; 872 quart, \$656.50; 874 quart, \$658.00; 876 quart, \$659.50; 878 quart, \$661.00; 880 quart, \$662.50; 882 quart, \$664.00; 884 quart, \$665.50; 886 quart, \$667.00; 888 quart, \$668.50; 890 quart, \$670.00; 892 quart, \$671.50; 894 quart, \$673.00; 896 quart, \$674.50; 898 quart, \$676.00; 900 quart, \$677.50; 902 quart, \$679.00; 904 quart, \$680.50; 906 quart, \$682.00; 908 quart, \$683.50; 910 quart, \$685.00; 912 quart, \$686.50; 914 quart, \$688.00; 916 quart, \$689.50; 918 quart, \$691.00; 920 quart, \$692.50; 922 quart, \$694.00; 924 quart, \$695.50; 926 quart, \$697.00; 928 quart, \$698.50; 930 quart, \$700.00; 932 quart, \$701.50; 934 quart, \$703.00; 936 quart, \$704.50; 938 quart, \$706.00; 940 quart, \$707.50; 942 quart, \$709.00; 944 quart, \$710.50; 946 quart, \$712.00; 948 quart, \$713.50; 950 quart, \$715.00; 952 quart, \$716.50; 954 quart, \$718.00; 956 quart, \$719.50; 958 quart, \$721.00; 960 quart, \$722.50; 962 quart, \$724.00; 964 quart, \$725.50; 966 quart, \$727.00; 968 quart, \$728.50; 970 quart, \$730.00; 972 quart, \$731.50; 974 quart, \$733.00; 976 quart, \$734.50; 978 quart, \$736.00; 980 quart, \$737.50; 982 quart, \$739.00; 984 quart, \$740.50; 986 quart, \$742.00; 988 quart, \$743.50; 990 quart, \$745.00; 992 quart, \$746.50; 994 quart, \$748.00; 996 quart, \$749.50; 998 quart, \$751.00; 1000 quart, \$752.50; 1002 quart, \$754.00; 1004 quart, \$755.50; 1006 quart, \$757.00; 1008 quart, \$758.50; 1010 quart, \$760.00; 1012 quart, \$761.50; 1014 quart, \$763.00; 1016 quart, \$764.50; 1018 quart, \$766.00; 1020 quart, \$767.50; 1022 quart, \$769.00; 1024 quart, \$770.50; 1026 quart, \$772.00; 1028 quart, \$773.50; 1030 quart, \$775.00; 1032 quart, \$776.50; 1034 quart, \$778.00; 1036 quart, \$779.50; 1038 quart, \$781.00; 1040 quart, \$782.50; 1042 quart, \$784.00; 1044 quart, \$785.50; 1046 quart, \$787.00; 1048 quart, \$788.50; 1050 quart, \$790.00; 1052 quart, \$791.50; 1054 quart, \$793.00; 1056 quart, \$794.50; 1058 quart, \$796.00; 1060 quart, \$797.50; 1062 quart, \$799.00; 1064 quart, \$800.50; 1066 quart, \$802.00; 1068 quart, \$803.50; 1070 quart, \$805.00; 1072 quart, \$806.50; 1074 quart, \$808.00; 1076 quart, \$809.50; 1078 quart, \$811.00; 1080 quart, \$812.50; 1082 quart, \$814.00; 1084 quart, \$815.50; 1086 quart, \$817.00; 1088 quart, \$818.50; 1090 quart, \$820.00; 1092 quart, \$821.50; 1094 quart, \$823.00; 1096 quart, \$824.50; 1098 quart, \$826.00; 1100 quart, \$827.50; 1102 quart, \$829.00; 1104 quart, \$830.50; 1106 quart, \$832.00; 1108 quart, \$833.50; 1110 quart, \$835.00; 1112 quart, \$836.50; 1114 quart, \$838.00; 1116 quart, \$839.50; 1118 quart, \$841.00; 1120 quart, \$842.50; 1122 quart, \$844.00; 1124 quart, \$845.50; 1126 quart, \$847.00; 1128 quart, \$848.50; 1130 quart, \$850.00; 1132 quart, \$851.50; 1134 quart, \$853.00; 1136 quart, \$854.50; 1138 quart, \$856.00; 1140 quart, \$857.50; 1142 quart, \$859.00; 1144 quart, \$860.50; 1146 quart, \$862.00; 1148 quart, \$863.50; 1150 quart, \$865.00; 1152 quart, \$866.50; 1154 quart, \$868.00; 1156 quart, \$869.50; 1158 quart, \$871.00; 1160 quart, \$872.50; 1162 quart, \$874.00; 1164 quart, \$875.50; 1166 quart, \$877.00; 1168 quart, \$878.50; 1170 quart, \$880.00; 1172 quart, \$881.50; 1174 quart, \$883.00; 1176 quart, \$884.50; 1178 quart, \$886.00; 1180 quart, \$887.50; 1182 quart, \$889.00; 1184 quart, \$890.50; 1186 quart, \$892.00; 1188 quart, \$893.50; 1190 quart, \$895.00; 1192 quart, \$896.50; 1194 quart, \$898.00; 1196 quart, \$899.50; 1198 quart, \$901.00; 1200 quart, \$902.50; 1202 quart, \$904.00; 1204 quart, \$905.50; 1206 quart, \$907.00; 1208 quart, \$908.50; 1210 quart, \$910.00; 1212 quart, \$911.50; 1214 quart, \$913.00; 1216 quart, \$914.50; 1218 quart, \$916.00; 1220 quart, \$917.50; 1222 quart, \$919.00; 1224 quart, \$920.50; 1226 quart, \$922.00; 1228 quart, \$923.50; 1230 quart, \$925.00; 1232 quart, \$926.50; 1234 quart, \$928.00; 1236 quart, \$929.50; 1238 quart, \$931.00; 1240 quart, \$932.50; 1242 quart, \$934.00; 1244 quart, \$935.50; 1246 quart, \$937.00; 1248 quart, \$938.50; 1250 quart, \$940.00; 1252 quart, \$941.50; 1254 quart, \$943.00; 1256 quart, \$944.50; 1258 quart, \$946.00; 1260 quart, \$947.50; 1262 quart, \$949.00; 1264 quart, \$950.50; 1266 quart, \$952.00; 1268 quart, \$953.50; 1270 quart, \$955.00; 1272 quart, \$956.50; 1274 quart, \$958.00; 1276 quart, \$959.50; 1278 quart, \$961.00; 1280 quart, \$962.50; 1282 quart, \$964.00; 1284 quart, \$965.50; 1286 quart, \$967.00; 1288 quart, \$968.50; 1290 quart, \$970.00; 1292 quart, \$971.50; 1294 quart, \$973.00; 1296 quart, \$974.50; 1298 quart, \$976.00; 1300 quart, \$977.50; 1302 quart, \$979.00; 1304 quart, \$980.50; 1306 quart, \$982.00; 1308 quart, \$983.50; 1310 quart, \$985.00; 1312 quart, \$986.50; 1314 quart, \$988.00; 1316 quart, \$989.50; 1318 quart, \$991.00; 1320 quart, \$992.50; 1322 quart, \$994.00; 1324 quart, \$995.50; 1326 quart, \$997.00; 1328 quart, \$998.50; 1330 quart, \$1000.00; 1332 quart, \$1001.50; 1334 quart, \$1003.00; 1336 quart, \$1004.50; 1338 quart, \$1006.00; 1340 quart, \$1007.50; 1342 quart, \$1009.00; 1344 quart, \$1010.50; 1346 quart, \$1012.00; 1348 quart, \$1013.50; 1350 quart, \$1015.00; 1352 quart, \$1016.50; 1354 quart, \$1018.00; 1356 quart, \$1019.50; 1358 quart, \$1021.00; 1360 quart, \$1022.50; 1362 quart, \$1024.00; 1364 quart, \$1025.50; 1366 quart, \$1027.00; 1368 quart, \$1028.50; 1370 quart, \$1030.00; 1372 quart, \$1031.50; 1374 quart, \$1033.00; 1376 quart, \$1034.50; 1378 quart, \$1036.00; 1380 quart, \$1037.50; 1382 quart, \$1039.00; 1384 quart, \$1040.50; 1386 quart, \$1042.00; 1388 quart, \$1043.50; 1390 quart, \$1045.00; 1392 quart, \$1046.50; 1394 quart, \$1048.00; 1396 quart, \$1049.50; 1398 quart, \$1051.00; 1400 quart, \$1052.50; 1402 quart, \$1054.00; 1404 quart, \$1055.50; 1406 quart, \$1057.00; 1408 quart, \$1058.50; 1410 quart, \$1060.00; 1412 quart, \$1061.50; 1414 quart, \$1063.00; 1416 quart, \$1064.50; 1418 quart, \$1066.00; 1420 quart, \$1067.50; 1422 quart, \$1069.00; 1424 quart, \$1070.50; 1426 quart, \$1072.00; 1428 quart, \$1073.50; 1430 quart, \$1075.00; 1432 quart, \$1076.50; 1434 quart, \$1078.00; 1436 quart, \$1079.50; 1438 quart, \$1081.00; 1440 quart, \$1082.50; 1442 quart, \$1084.00; 1444 quart, \$1085.50; 1446 quart, \$1087.00; 1448 quart, \$1088.50; 1450 quart, \$1090.00; 1452 quart, \$1091.50; 1454 quart, \$1093.00; 1456 quart, \$1094.50; 1458 quart, \$1096.00; 1460 quart, \$1097.50; 1462 quart, \$1099.00; 1464 quart, \$1100.50; 1466 quart, \$1102.00; 1468 quart, \$1103.50; 1470 quart, \$1105.00; 1472 quart, \$1106.50; 1474 quart, \$1108.00; 1476 quart, \$1109.50; 1478 quart, \$1111.00; 1480 quart, \$1112.50; 1482 quart, \$1114.00; 1484 quart, \$1115.50; 1486 quart, \$1117.00; 1488 quart, \$1118.50; 1490 quart, \$1120.00; 1492 quart, \$1121.50; 1494 quart, \$1123.00; 1496 quart, \$1124.50; 1498 quart, \$1126.00; 1500 quart, \$11

SCREW DRIVERS.

Douglas Mfg. Co. dis 20kto 5
 Distant's dis 45 5
 Cowles Mfg. Co. dis 20kto 5
 Stanley Rule & Level Co. s. Var. Hds. dis 60 5
 Stanley Rule & Level Co. s. Black Hds. dis 30 5
 Ratches dis 30 5
 Clark's Patent dis 25 5
 Shepards dis 25 5

SPOKE TRIMMERS.

Bonney's dis 20 5
 Stearns dis 20 5
 Ives dis 20 5
 Douglas dis 20 5

SILVER PLATED WARE.

Wm. Rogers Manf. Co. dis 20kto 5
 Holmes, Booth & Hayden dis 20kto 5
 Wallace's Steel Silver Plated dis 20kto 5
 Rogers Bros 1847 dis 20kto 5
 C. Rogers & Bro. dis 20kto 5

SCREWS.

Standard new list, Feb. 15.

Flat Head Bright 70 5
 Round Head Bright 65 5
 Flat Head Brass 60 5
 Round Head Brass 55 5
 Flat Head Blue (add 5% to net) 70 5
 Brass and Silver Capped 40 5
 Japanned Flat Head 65 5
 Coach, Patent Gimlet Point dis 60 5
 Coach, Common or Lag dis 70 5
 Bed dis 70 5
 Machine, Flat Head, Iron dis 55 5
 Machine, Round Head, Iron dis 50 5
 Bench, Iron dis 55kto 5
 Bench, Wood, Beach dis 20 5
 Bench, Wood, Hickory dis 20kto 5
 Hand, Wood dis 25kto 5
 Hand Rail, Sargent's dis 60kto 5
 Hand Rail, Humason, Beckley & Co.'s dis 60kto 5
 Hand Rail, A. S. Co. s. list Jan. 1, 1885 dis 70 5
 Jack (Wilson's) dis 25 5

SCREEN FRAMES AND FITTINGS.

Standard Window Screens No. 1, dis 20 5
 " " No. 2, dis 20 5
 " Window Corner Irons, No. 3, dis 20 5
 " " No. 4, dis 20 5
 " " No. 5, dis 20 5
 " " No. 6, dis 20 5
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 " " No. 97, dis 20 5
 " " No. 98, dis 20 5
 " " No. 99, dis 20 5
 " " No. 100, dis 20 5

SCREENS AND SCREENS.

American (Cast) Iron dis 20kto 5
 Pruning see Pruning Hooks and Shears
 Barnard's Lamp Trimmers dis 20 5
 Tinner's dis 20 5
 Massachusetts dis 20kto 5
 Seymour's dis 20kto 5
 Jersey Shears dis 20 5
 J. Wiss & Son, Nickel, 20k 5; Japanned, 20kto 5

SLIDING DOORS.

Sliding Door, M. W. & Co., List dis 20kto 5
 Sliding Door, R. & K. list dis 20kto 5
 Sliding Door, Patent Roller dis 20kto 5
 Sliding Door, Pt. Roller, Hatfield's dis 20kto 5
 Sliding Door, Russell's Anti-Friction dis 20kto 5
 Also see Hangers.

SHOVELS AND SPADERS.

Alex. New List, November 1 1885 dis 20 5
 Griffiths dis 20k 5
 Remington's (Lowman's Patent) dis 20 5
 Rowland's dis 20 5
 Lippincott, new list dis 20 5
 Huxley, Sims & Co. dis 20 5

SILVER PLATED HOLLOW WARE.

Wm. Rogers Manf. Co. dis 20 5
 Meriden Britannia Co. dis 20 5

SOLDERING IRONS AND COPPERS.

Cover's Soldering Irons dis 25 5
 Cover's Adjustable Coppers dis 25 5

SPOONS.

Britannia dis 60, 20kto 5
 Tinned Iron, Table and Tea dis 65 5
 Tinned Iron Hasting dis 65 5
 German Silver dis 40k 5

STONES.

Hindostan No. 1, etc.; Aze, 50 net
 Sand Stone dis 20, 6c, dis 20 5
 Washita Stone dis 20, 6c, dis 20 5
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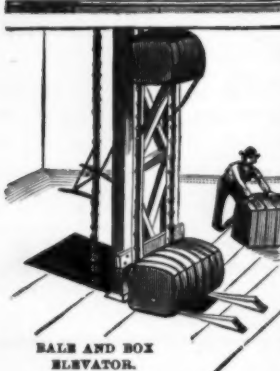
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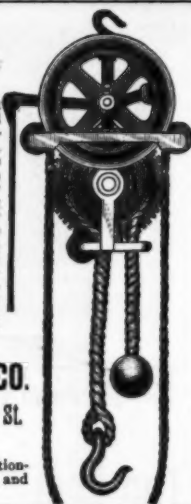
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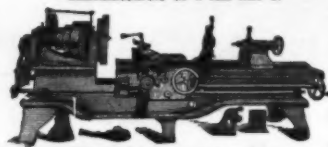
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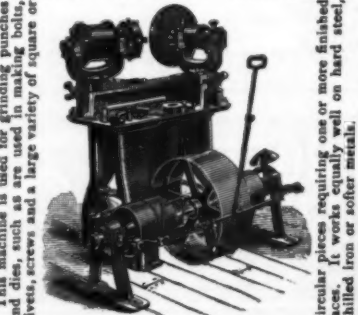
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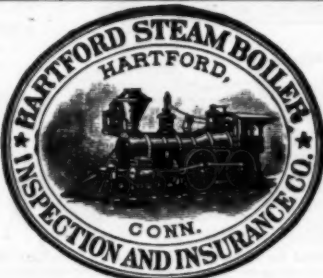
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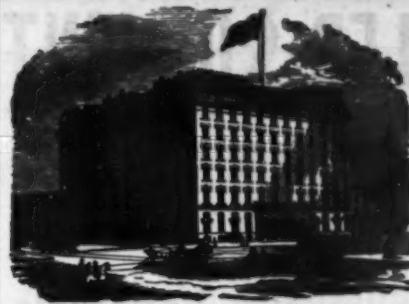
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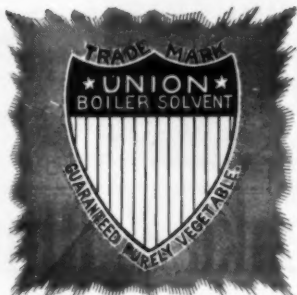
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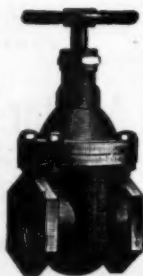
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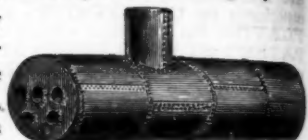
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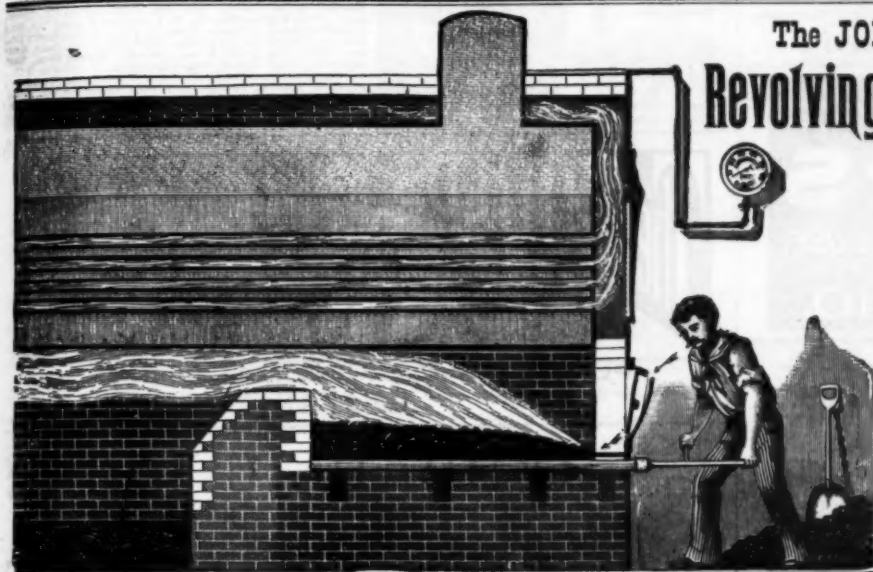
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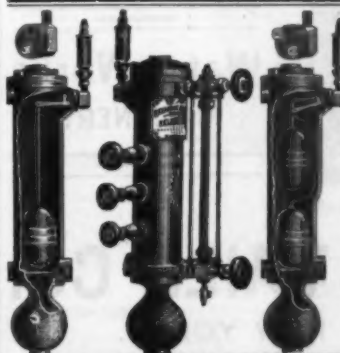
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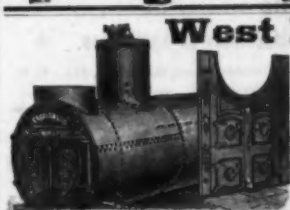


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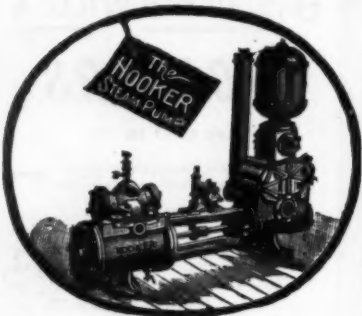
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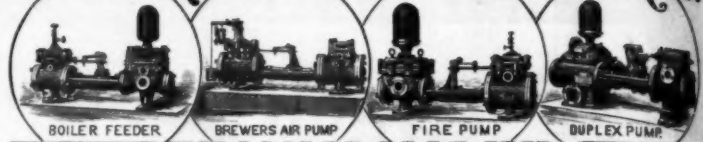
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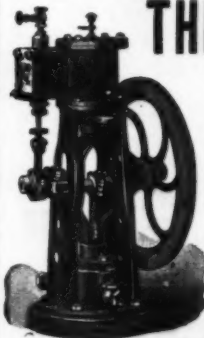
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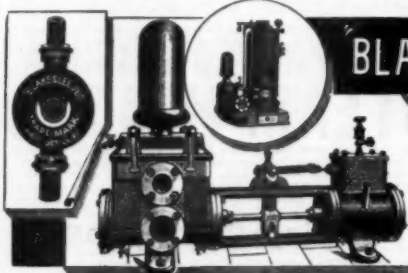
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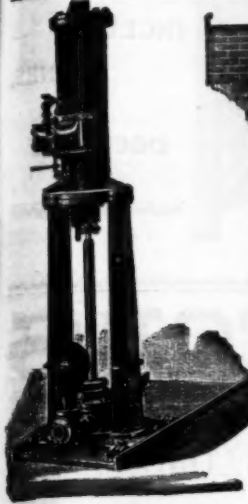
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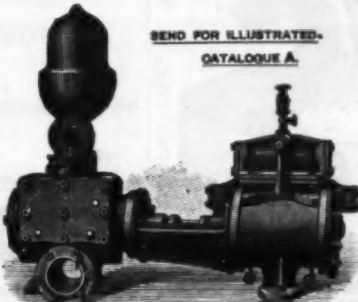


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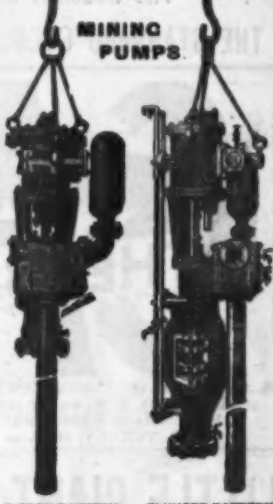
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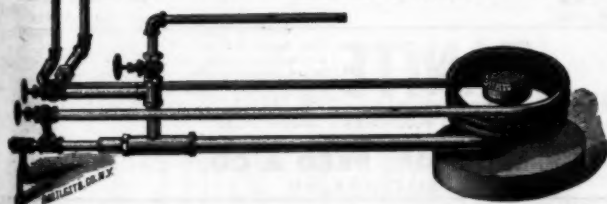
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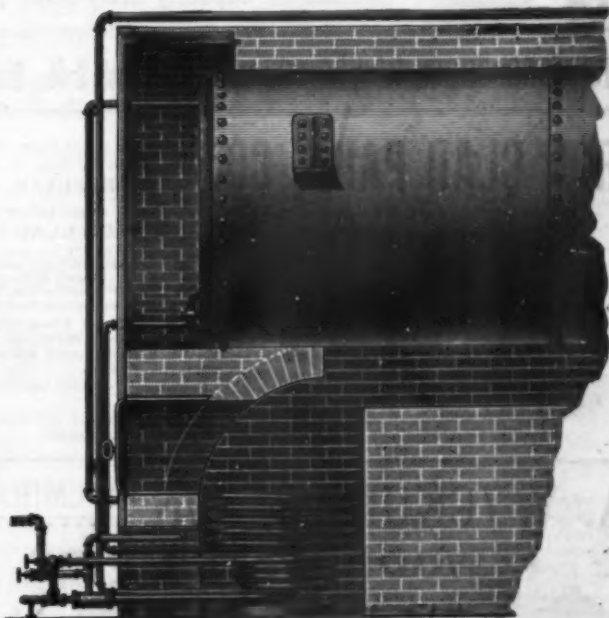
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EMPIRE HYDRO-CARBON CO.

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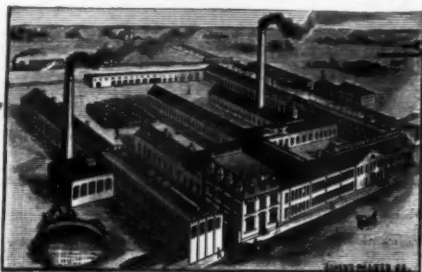
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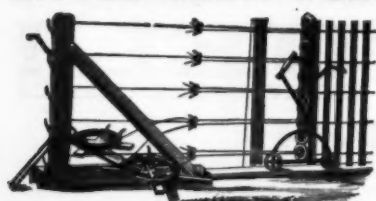


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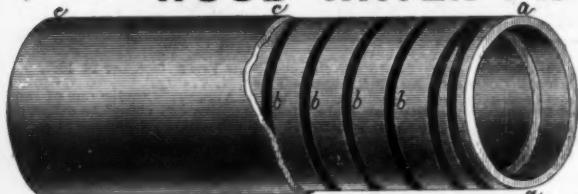
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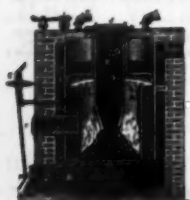
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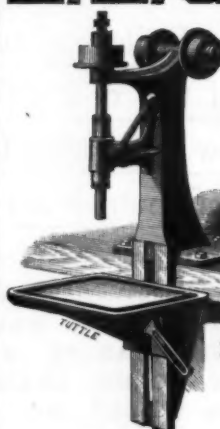
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